

FARMER'S ADVOCATE

AND HOME JOURNAL

THE ONLY WEEKLY AGRICULTURAL PAPER IN WESTERN CANADA

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JUNE 26, 1907

WINNIPEG MANITOBA

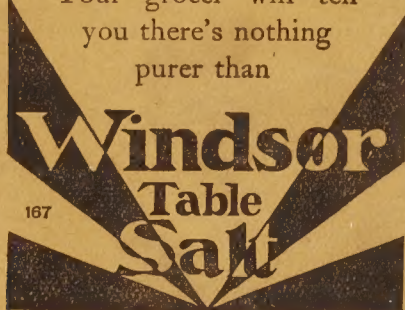
VOL. XLII, NO. 770

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Lands in Manitoba, Saskatchewan and
Alberta, excepting 8 and 26, not reserved, may
be homesteaded by any person who is the sole
head of a family, or any male over 18 years of
age, to the extent of one-quarter section of 160
acres, more or less.

Entry must be made personally at the local
land office for the district in which the land is
situated.

The homesteader is required to perform the
conditions connected therewith under one of the
following plans:

(1) At least six months' residence upon and
cultivation of the land in each year for three
years.

(2) If the father (or mother if the father is
deceased) of the homesteader resides upon a
farm in the vicinity of the land entered for, the
requirements as to residence may be satisfied
by such person residing with the father or mother.

(3) If the settler has his permanent residence
upon farming land owned by him in the vicinity
of his homestead, the requirements as to residence
may be satisfied by residence upon the said land.

Six months' notice in writing should be given to
the Commissioner of Dominion Lands at
Ottawa of intention to apply for patent.

W. W. CORY,
Deputy of the Minister of the Interior.
N. B.—Unauthorized publication of this
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The Only Weekly Farm Journal in Western Canada.

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14 and 16 Princess Street, Winnipeg, Man.

Branches at London, Ont. and Calgary, Alta.

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FARMER'S ADVOCATE OF WINNIPEG, LIMITED.
WINNIPEG, MAN.

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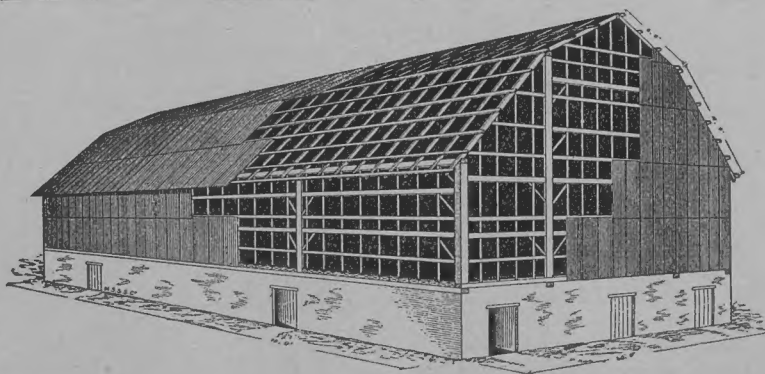
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This cut shows an up-to-date Barn Construction, 40 feet x 70 feet,
and the method of covering with Corrugated Sheets. The frame-
work is light, as the corrugated sheets, when nailed in place, make
the building very rigid. This drawing is made from actual plans
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This galvanized covering protects your building from lightning,
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WINNIPEG, Man.

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G. B. MURPHY & CO., Winnipeg, Man.**WHEAT**

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North Brandon, 2nd Aug., 1906
The Manitoba Farmers'
Mutual Hail Insurance Co.

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I am in receipt of your favor of the 30th ult., inclosing cheque for \$100.00 in part payment of damage to my crop from hail.

I have to thank your company for the satisfactory adjustment of the loss and for the prompt businesslike manner of the settlement. I am more particularly pleased as the matter was adjusted during my absence from home. I will have much pleasure in recommending my friends to insure in The Farmers' Mutual Hail Insurance Company.

Yours very truly,
(Sgd.) DUNCAN McEWEN**286 Loss Claims Paid in full by this Company Last Year, Amounting to \$51,485.47.**

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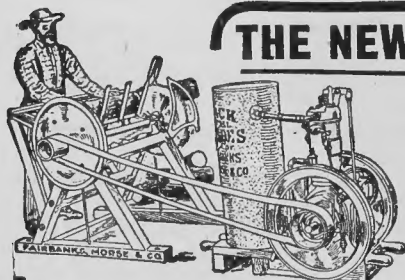
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77

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Improved ranches and wild land sold direct to settlers. Locations made for settlers. Reports on land and general land surveying.

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Trail, British Columbia



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KOOTENAY

Messrs. McDermid & McHardy,
Nelson, B. C.

Robson, B. C., 22-4-07

Dear Sirs:—

I bought a lot from you 1st Jan., 1907, not seeing it until I moved on it 27th March. I wish to state the quality of soil, and the location of the property far surpasses my greatest expectations. I have lived on the prairie for twenty years, in southeastern Saskatchewan. I travelled over a considerable portion of B. C. before locating here. People on the prairie imagine living in the Pockies means obtaining a very short glimpse of the sun during the daytime. In fact, according to their ideas, the length of time it takes the sun to traverse the space from behind one mountain until it hides itself in obscurity behind the next, is all the sunshine we are entitled to. I was agreeably surprised myself to find we have just as bright sunny days here at Robson as we had on the Prairie.

People in the East, who are intending moving to some other part of the country, where they can enjoy a more favorable climate, and surroundings, would save themselves a great deal of expense and travel, if they would come to Robson. After they had thoroughly examined the property and the location, they would undoubtedly conclude, "They could not possibly wish a better place to live."

I find all prices for produce and the general description of the property exactly as stated in advertising matter, and not in the least exaggerated.

Yours sincerely

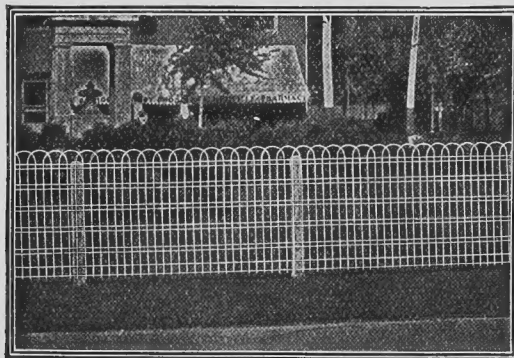
(Signed) H. Hedley.

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The following was recently received from the first party of settlers who purchased land for fruit growing from this company at Howser Lake and who took up their residence at the lake the first of May last. Each of the party was given a fortnight to thoroughly examine the allotment picked out for him, with the option of changing the lot selected or withdrawing. All retained their lots and in addition stated as below:

Howser, B. C., May 15, 1907.

We, the undersigned, residents at Howser Lake, British Columbia, who purchased ten-acre blocks of fruit land from Messrs. Oldfield, Kirby and Gardner while at Winnipeg, desire to express our great satisfaction with the soil, climate and scenery.

The soil is fully up to the description given us, the quality being further proven by the results already attained by the earlier settlers on the lake, while the scenery is grand and beautiful beyond description.

(Signed) C. P. R. Hutton

R. Tangye

W. Tangye

H. S. Davis

Chas. P. S. Henderson

S. Clarke

L. R. Hutton

For further particulars, address

OLDFIELD, KIRBY & GARDNER

391 Main Street, Winnipeg, Man.

Farmer's Advocate

and Home Journal

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June 26, 1907.

WINNIPEG, MANITOBA.

Vol. XLII. No. 770

EDITORIAL

Two Sound Principles in Crop Improvement.

When on his recent visit to Canada, Mr. Garton of the family of seed breeders of that name entertained those with whom he talked with the elaboration of many of the principles underlying the improvement of plants. Two of these to which the Gartons adhere and which they have satisfied themselves are sound, are that the desirable characteristics of any variety or wild type can be bred into any other variety or type of the same species; and the other is that without the introduction of fresh blood plants tend to deteriorate, and alternately, crossing and selecting to a type plants can be very much improved. The first of these principles they have demonstrated beyond every shadow of a doubt and have as witness the fact that they have completely altered the characteristics of certain plants and given them new and improved features. The recognition of this principle and its application to the improvement of field crops is a valuable contribution to agricultural science, but its effects are even more far-reaching than the simple enunciation of the principle would lead one to expect. Cross breeding of plants not only imparts to the resulting produce the characteristics, good and bad, of each parent, but one of the very first effects of the cross is to exaggerate the characteristic of the parents. As for instance when the wild type of Chinese oats containing five grains to the spikelet was crossed upon a cultivated variety, the resulting crop had spikelets with grains varying in number from three to nineteen. After such a cross as this a few years (ten to fifteen) of patient work is then devoted to the fixing of the more desirable characteristics. But in the meantime further improvement is accomplished by blending with the type desired characteristics of other varieties to give strong straw, greater size of grain or whatever it may be desired to impart. In the cross breeding of plants, the Messrs. Garton believe there are practically infinite possibilities for the increase in the yields of crops, and cite as an example the trials of the Highland and Agricultural Society which reported an increase of over fifty per cent. by some of their improved seeds over all others tried. This illustrates the value of deliberate care in the choice of seed grain.

The second principle advanced by the Gartons; namely, that grain crops tend to deteriorate toward the average of wild types, approves of the practice of changing seed quite frequently, a plan that some plant breeders in America do not advocate and try to discourage, contending that by selecting the best seed from the regular crop grown upon the farm, the most steady improvement can be made. The latter idea is without doubt a good one, but it also looks reasonable that by changing seed, and especially when the change is made for seed with inbred improved characteristics, a greater improvement may be expected than where no new blood is introduced. Experience in stock breeding vindicates this theory, especially in the first cross of similar types. This theory when followed further throws some light upon the problem of the fading color of our best hard wheat and suggests that its color and hardness might be regained by a judicious cross with some other variety. The problems of the plant breeder are many and intricate and his accomplishments are equally marvellous.

In some cities they have started purebred cat associations. Why cannot some of Strathcona's most enterprising citizens start a purebred Buffalo association?

Summer's Green.

The evidence that other things besides the prices of wheat and cattle and horses count has been abundant the past few weeks. The summer weather of June has put a different spirit into everyone. From the dark dripping pessimism generated by the cold and dullness of May, people have emerged into buoyant smiling optimism. all because the sun shone warm and showers fell to water the grain, just as though the longest and coldest of winters had not threatened to prolong its blighting influence into mid-summer. It would be hard to conceive of better growing conditions than are prevailing over the greater part of Western Canada this month. Some places it is asserted that grain has grown as much as an inch a day and as there was a good root development before the warm weather arrived there is not likely to be any lessening of advance.

A red rag exercises an irritating effect upon the vision and the disposition, but green is a restful hue. It does not strike the eye like a thunder clap upon the ear. It is suggestive of health, growth and plenty. When earth decks herself in green all her creatures are content. Nor is it because green is simply a promise of material welfare that it is conducive to the optimistic frame of mind. The farmer is happy though he never thinks of the connection between growing crops and swelling revenues; the hired man as he drowsily trails back and forth across the summer-fallow is contented that the sun shines warm, that blades are stretching and that summer reigns. At such times he worries little about his salary, but thinks more about making the most of living. The hardness of dollars is forgotten and the benignness of nature pervades over all.

The Noxious Weeds Problem.

This issue and last week's contain a bulk of evidence upon the prevalence and means of eradicating noxious weeds. This matter is not published to discredit the country as a whole, nor to disparage any part of it, nor to console the man who has weeds to fight with the fact that others are similarly afflicted. Weeds are a present and ever increasing evil, but we fear the people who are and will be most affected by their presence are not so much concerned as they should be. It is a well enough known fact that weeds can be prevented from getting a hold a great deal easier than they can be stamped out, but too few farmers appear to act upon this knowledge. The idea seems to have obtained possession of some people's minds that by some wholesale process they will be able to clean their farms should they become seriously infected. There never was such folly. There are ways and means of upsetting artificial plans and works, but with plant growth and such things as Nature has the arranging of, it takes long persistent effort to alter them. There are yet no miracle workers making a specialty of cleaning farms of weeds.

As has often been said before, our system of cropping is largely responsible for the spread and growth of weeds, but it is not necessary in order to check them to completely alter our system of farming. Slight modifications in methods of cultivation and cropping having for one of their objects the checking of weeds is the most rational policy. There is a deal of efficacy in the summer-fallow substituted by shallow fall and spring cultivation. There is a further gain by seeding part of the farm to grass and barley, and further help from the sowing of well cleaned seed. Too much has been expected of "noxious weeds acts" and of weed inspectors. These agencies are useful and beneficial as far as their influence extends; but they cannot be expected to stem the whole advance of noxious weeds growth. This is a case where every man must be his own

physician with the "weed acts" and weed inspectors to assist him in guarding against infection. The main hope for cleaner farms really lies in growing a greater variety of crops, which necessitates more diverse methods of cultivation and with the extending markets for barley, oats, hay, flax, seeds, etc., as well as the promise of better live stock markets, these crops should be equally as profitable as wheat. Wheat is peculiarly adapted for the growth of weeds, owing to the fact that it is so little cultivated during the growing period and is so long in ripening that the seeds of weeds have an opportunity to ripen and fall to the ground. Such conditions must be studied in the war with weeds, as also must be the nature of weeds. In these published letters referred to are given hints of how some farmers are fighting weeds, and of how weeds are spreading. One result of them should be to enforce the seriousness of the situation and to set each man more deliberately at work to keep his own farm clean.

Is it Wise to Double the Free Land Offer?

There is considerable difference of opinion over the Oliver bill, to provide pre-emptions as well as homesteads, which the Minister of the Interior has publicly announced he will put through the House of Commons at the next session of that body. One section of the public asks the question, "Is it wise or necessary to offer greater inducements to come to the West, when the rate of immigration is far more than the transportation or fuel supply companies can minister to?" If the tide were flowing away from Canada there would be justification for holding up greater inducements, but the facts show the reverse to be the case. Further, it is stated that the offer will result in the migration of those on the older farms to the newer lands. This would not be an unmixed benefit, although by some it is pointed out as an advantage. The old proverb, "A rolling stone gathers no moss," has its truest application to the farmer. Agriculture makes little or no progress where the land workers are nomadic. The history of agriculture shows that the highest type of men in that profession and the best work are to be found where farmers and descendants have worked the same land for generations. The wander-lust amongst farmers means the seeding of all parts of the cultivated area to weeds. Another effect of the bill will be to induce people entirely unfitted either by nature or preparation, to try farming and waste their lives and spoil much good land thereby. The good feature of the bill is that odd as well as even numbered sections will be offered for homesteading, a change that should have been made years ago. The sparseness of the settlement has accounted for the comparatively slow development, education, culture, and "the knowing how to live and enjoy life," in the West. It also accounts for the overwhelming preponderance of bachelors, a feature bad for any country to show. Taken by and large, the bill needs thought by Canadians, and each man needs when so considering to separate himself from the idea of getting 320 acres easily, and to keep in view the public interest.

* * *

Hon. A. B. Aylesworth has notified Deputy Attorney-General Wood of Alberta that it is now open for the provinces to proceed against the lumbermen's associations. If this interpretation of the law is sustained it should relieve the Manitoba Grain Growers' Association of any doubts about the propriety of their action in proceeding against the Grain men.

* * *

The Manitoba Agricultural College is endeavoring this week, by means of a special train and a large staff of speakers, to galvanize into vitality the dairy industry of the province. May their efforts be fruitful.

HORSE

Developing Action in Hackneys.

"I would be thankful for information regarding best method of handling, as to biting, manning, shoeing and developing action, of a two-year-old Hackney colt intended for stud purposes."

The young Hackneys on this place are taught first to walk and kept walking to a halter; no bit put into the mouth for first month. Then an English biting bit is put in use and they are checked up with side lines buckled to roller to keep head straight. They are now trotted alongside a fence, back and forth for about 200 yards, going slow at first, and gradually increasing the gait. We do not shoe for two or three weeks after beginning to handle the colts and then only with light shoes. The action must be carefully watched to keep it true and straight, weight on heel to make him fold his knees and on the toe to reach out. It is a good rule to remember to make haste slowly and not hurry too much, giving plenty of slow work to get the colt strong and quiet.—*Ex.*

Day to Return Mares.

We have been breeding horses for many years. The oestral period with mares recurs quite regularly every three weeks, the first one after foaling being manifest about the ninth day. This period with most mares is brief, seldom ever being manifest over three days and usually only one, the ninth. The subsequent periods are longer, varying with different mares from three to ten days.

Our instructions are always to return in just three weeks. I should never allow a horse to serve a mare at intervals of nine days. If she were in heat at that time it would only be evidence that she had not gone out since the previous service and would not be evidence that she had not conceived. If a mare should be bred toward the close of an oestral period and did not conceive, she would probably be in heat again in eighteen days, but if she had been bred toward the first of the period she would not be, so we think it safer to make the return the twenty-first day. We have been reasonably successful in breeding mares on the thirtieth day after foaling.

P. MILLS.

The Barren Mare Problem.

A problem which has long perplexed horse breeders, and is apparently no nearer of solution, is the relationship which should exist between the barren mare and the modern show-yard. It must be admitted that when our best mares run barren it is a severe and regrettable loss to the breeder. The chief principle involved in pedigree is the perpetuation of first-class strains, of outstanding individuals and the recognition of their worth on paper. To what extent barrenness is accidental, and in what manner designed, is sometimes rather difficult to determine. If a mare, for instance, has a very late foal the expediency of permitting her to run barren for a time can be excused, and if it is accidental, and perhaps due to the sire, there can be little cause for complaint; but there can be no doubt that a strong temptation exists to keep a mare barren for the express purpose of winning at summer shows. It is this last and premeditated form of barrenness against which breed societies should most firmly protest. The show-yard is entirely overshooting its object if it encourages barrenness purely and simply with the object of establishing a reputation.

The matter has not quite received that attention which it deserves, although the Shire Horse Society has attempted to deal with it, and has partially dealt with it. Yet stronger measures are required, and they ought to emanate, first from breed societies, and secondly from Agricultural Societies, which should support, in the interest of those whom they are designed to serve, the principle of fructivity rather than inutility. These remarks are partially prompted by the extraordinary barren mare class which appeared at the Nottingham Show in the Shire section. It is probably within the mark to say that such a class has not been gathered together at any other show in the country. How far the condition of those animals is merely the accident of Nature cannot be determined off-hand; but it cannot fail to be a subject of remark that such magnificent talent should be left even one year unfruitful. It is true that the Shire Horse Society is still considering the most effective means of dealing with the barren mare problem, but unless it lays down very definite conceptions of its intentions, like the average Act of Parliament, the proverbial coach and four may be

driven through them. The praise-worthy idea of making the championship only open to brood mares and fillies, which include—or are supposed to, which is quite another matter—mares which have not spent periods of unfruitfulness at stud, deserves to be carried out strictly. The question which the Society has got to solve, however, is whether the mare, by accident of service, is to be considered as qualified for breeding purposes. There have been cases in which the mares obviously not in foal, have secured high honors and won the glory, yet failed to qualify for the position. But the honor still remains, although they are deprived of the actual emolument attaching to the position.

There can be no doubt that the problem bristles with difficulties. It is very hard indeed that a mare which has bred regularly, and may happen to miss a season, in all probability due to the sire, should be disqualified for barrenness. Probably the difficulty can be got over to some extent by not recognising late services, so that there would be reasonable external evidence that the mare was in a brood condition. That rule might operate somewhat drastically, but, on the whole, it would operate beneficially. Meanwhile, the Society might very well exclude from competition for medals animals which are not in a fruitful condition.

A society's first duty is to keep the show-yard as far as possible in consonance with the aims of the breeder. Most societies are concerned with securing a first-rate show, but in the interests of breeders it is doubtful whether a barren mare should be eligible for championship. The other thought suggested is that barrenness may be encouraged on account of two reasons—first, because of the hard feeding and preparation involved in showing horses in the show-yard of to-day, which admittedly has a deleterious effect on their breeding capacity; and secondly, the over service of sires, having the multiplicity of fees in view rather than their capacity to leave foals.

This question, in the interests of the breeder, requires to be very deeply probed. Complaints are heard on all hands when barrenness is rife. Meanwhile it certainly falls upon the Shire Horse Society and other organizations with similar objects to give a lead in this matter in a much more decided fashion than they have done in the past.—*Farmer and Stockbreeder.*

The Hackney not Suited to Every Type of Mare.

EDITOR FARMER'S ADVOCATE:

I notice that my friends the Hackney enthusiasts are in full blast again; in fact, have continued in full blast since our controversy, of a year ago. One result of their activity has been that I myself now know what are the feelings of an Irish Roman Catholic, who witnesses an Orange parade, and vice versa.

There have been letters lately in the *Breeders' Gazette* of a similar nature to the ones this winter in the *FARMER'S ADVOCATE*, in answer to a correspondent who asks advice as to how he should breed his bunch of light Western mares. By this time both the *Gazette* and the *FARMER'S ADVOCATE* man must be ready to cry, *Save me from my friends*. They have both been advised to use every kind of known and unknown stallion. Mr. Ross (the *Gazette* seeker-after-knowledge) was recently advised, in an extremely good article, to use a Hackney stallion, the writer describing a bunch of range mares on which the experiment had been tried, with most splendid results. The colts were, smooth, fast, large, and made extra good cow ponies; also looked as if they would make hunters. Here the writer remarks, "Woe betide me, I know, if Mr. Ross (the enquirer) happens to be an Irishman, for I know it is impossible to talk Hackneys into the men of Ireland in connection with hunters. Here I too think it is time to make the point that Ireland breeds the best hunters in the world. The fact has never been disputed so far as I know. Irishmen themselves are among the best if not the best cross country riders in the world and they one and all say that the Hackney as a hunter is no good."

Yet in spite of this fact, more Englishmen, Canadians and Americans will persist in telling us that Hackneys are good cross country horses.

I notice one *FARMER'S ADVOCATE* correspondent claims that the Hackney will soon breed the "cow hocks and ewe necks" off a bunch of range mares. Now where is this bunch of Western horses to be found in which ewe necks, cat hams, cow hocks, etc., abound to such an extent as to have become a characteristic of the bunch? Not any where where I have been and I have seen a lot of these horses. Perhaps Mr. Goddard or Mr. Moodie will acknowledge the coin? Of course if people only see these horses, when they have been travelled around the country, they then see their horses, but Clydes, Percherons, Hackneys and all other horses have ewe necks and more or less

cat hams, if in the same condition. People get into the habit of repeating platitudes. I suppose some fool, years ago, saw a bunch of cayuses and thought they were representative Western horses, and now when we have good horses and plenty of them, the same old yarn of goose rumps, cows hocks, etc., is handed round. I am very proud of the color of my own bunch. Nearly all my horses are and have been for a long time "whole" colors—bays, browns, and chestnuts; yet one time a man who was looking over them, kept on murmuring to himself, "There is not a good bay or brown in the lot"—Force of habit I suppose.

To get the best results from say a bunch of twenty mares, I should say as many as three stallions should be used; some would suit one horse, some another. This I know is hard to do, and the man who is able to select the mares suitable to each stallion would be a sufficiently good horseman to need no advice from me or anyone else on the matter.

When you, good Hackney admirers, moderate your enthusiasm, no stallion of any breed will produce a uniform bunch of colts from any bunch of Western mares, unless they have been selected specially to "nick" with the particular horse. Don't claim too much. Remember the fable of the boy and the nuts, who filled his hand so full that he could not get his hand out of the jar.

I acknowledge the Hackney to be the popular show horse, the high actor, par excellence, and like Captain La de Dau, "He is the pet of all the ladies." Is not that glory enough for any one breed? Don't spoil your whole card by setting up a claim to speed, endurance, jumping powers, good looks, easy gait, and prepotency, in fact a combination of good points never yet attained by any one breed.

G. H. BRADSHAW.

[We agree that no horsemen would claim that the Hackney is a getter of hunters or jumpers, but he certainly will breed out the angularities of some of the other light breeds.—Ed.]

Some Pertinent Words on Fitting Horses for Work.

EDITOR FARMER'S ADVOCATE:

I have read with pleasure the article on fitting horses, by Mr. Hallman, in your issue of 29th May.

In fitting horses for spring work a man must decide between two things does he intend to work the horses himself or does he intend to sell them? If the horses are for sale, I should say Mr. Hallman's advice is good; in fact, I could add nothing useful; but if he intends to use the horses himself, I might suggest some small changes.

A couple of years ago I happened to call at a place when a large railway outfit were wintering their horses. I looked through the horses and had a talk with the man in charge. The horses were looking fairly well but not at all fat. I asked how they were fed and was told they got about a gallon of oats or chop of some kind twice a day; also hay when fed in the morning. They were turned out on the prairie to "paw" all day. Just about sundown they were taken in again and fed grain and hay, for the night. I thought the horses were hardly fat enough and said so; but the man looked quite surprised and said that if they ever noticed a horse putting on flesh they at once cut his feed down, the idea being to have the horses when spring work started, not fat, but just in fair condition. They would then have their feed increased on getting to work, gradually, until soon they were getting all they could eat. This is just the reverse of the course generally followed. Most farm horses get little or no grain all winter, when not working then in the last month are made as fat as possible. That this is not the good plan is self-evident. Fat does no good, and sometimes lots of harm. A fat horse, conditioned in this way, will surely fail more or less at spring work, whereas the horse who is not fat, but in fair order, will gain on work if the feed is increased.

The next point in importance is to get rid of his hair. About two weeks before you expect to start work, get the clippers to work. This beats any way Dame Nature knows of to get rid of the old winter coat. You may think the horse has his new coat but you will find a big difference between a partially new coat and a clipped one. I never knew a clipping horse who did not gain up on work. This spring I took in a couple of horses three days before I needed them to start discing. I clipped them at once, and now after discing and harrowing 200 acres they are in better shape than when they started.

About scalded shoulders I think the shoulders should be bathed, for some time before spring work, with some hardening preparation, such as a solution of tannic acid. If the shoulders are already sore I should wash them off when the horses come into the stable; then grease them in the morning, get the grease off and dust over with boracic acid, sulphur or something similar. Black lead applied to the sore part before leaving the stable will cause the collar to have less friction on the sore. You could also cut a piece out of the sweat pad over the sore. If the sore is on the point of the shoulder raise the draft of the traces.

In feeding, be careful not to give large feeds of grain at first: feed oftener and you will have no trouble. If you put your horses off their feed through

over-feeding and keep on working hard, you will have a nice time getting them back to their feed.

I will now just add that I consider cleaning the horses of quite as much importance as feeding them. If you do as I have advised and clip them, never use a curry comb: use a dry brush first; then wet and rinse the brush in a pail of water and with the brush just nicely damp. Brush the horse all over. This will take the dust all out and won't take five minutes to the horse. Of course if the weather is chilly you will blanket the horses in the stable.

Give your horses all the exercise possible, for surely if it is true that "Satan finds some mischief still" for idle (farm?) hands to do, he is still more active, among idle farm horses.

G. H. BRADSHAW.

Lameness in Horses

Lameness may be defined as an expression of pain in one or more limbs, the act of progression not, in all cases, being necessary to the manifestation of such, as a horse may stand lame.

DIAGNOSIS OF LAMENESS.

In many cases the seat of lameness is evident, while in others, even though the lameness be well marked, it is difficult, and requires care and knowledge to locate it. While we do not think it wise for an amateur to attempt to diagnose and treat a case of more or less obscure lameness, where professional help is procurable, it may be interesting, and to those who are not within a reasonable distance of a veterinarian, instructive, to deal briefly with the peculiarities of gait shown according to the part affected. The first point to be determined is the limb in which the animal is lame. This may seem an easy matter, but in reality is attended, in many cases, with no little difficulty, especially to those who have not given lameness especial study. It may be mentioned that a horse lame in one fore leg or foot will step as lightly as possible with the lame foot, lift it from the ground quickly, and tread heavily with the sound foot, his head nodding at the same time; that is, his head nods, more or less, according to the severity of the lameness, as the sound foot touches the ground. When lame in a hind leg, the elevation and depression of the hip of the lame leg will be more marked than that of the sound one. In some cases a mistake may be made by expressing an opinion that the lameness is in the hind leg when in reality it is in the fore, and vice versa. This mistake has so often been made that the peculiarity of gait that has led to it has been called "cross lameness." For example, a horse lame in the off fore leg is trotted from the observer; he seems to be lame in the near hind, for the quarter seems to ascend and descend. But when the animal is trotted towards the observer, it will be seen that the irregular motion of the hind quarters depends upon the elevation and dropping of the head and body, and that the lameness is really in the fore and not the hind limb. An opinion should not be given until the horse has been trotted from and towards the observer. Of course, there are many cases of lameness where the seat is so apparent that such an examination is quite unnecessary. In testing a horse for lameness, it is well to select a

hard, smooth road and have the horse led with a loose rein, first walking and then trotting, both straight away from and straight back to the observer. A horse may walk sound and go sound when trotted fast, or excited, or with his head held up by the person leading him, and show lameness when allowed to jog with a free head.

When a horse is lame in both fore feet, some difficulty is often experienced in its detection, as to the inexperienced he may appear to go sound. He will not nod in his gait, but will be short in his action; is said to go "groggy." Each foot is carefully put to the ground and quickly lifted up again; the step is short, and there is a rolling motion of the body. In other cases he may exhibit lameness in one foot as he goes from, and in the other as he approaches the observer. Such cases are very confusing, and require considerable power of discrimination. Care must be taken not to confound peculiarity of gait with lameness. For example, a horse, especially a young one, may appear lame in the near fore foot, if led with a short rein and his head pulled to one side, or when first bitted. This is called "bridle lameness," and disappears when the animal is run in a slack rein. Again, horses which are habitually exercised in a ring or round a circle usually appear lame in the fore limb nearest the center of the circle. When an animal is lame in both hind limbs, the difficulty of diagnosis is not so great, as he is both stiff and lame; but mere stiffness should be distinguished from lameness, although the two are often confounded. A stiff horse is certainly unsound, but may be very useful for slow work. Mere stiffness is not accompanied by pain; it may indicate fatigue in old age and pass off with exercise, or it may be constant, and, while the animal is discommoded more or less thereby, he does not suffer pain. But lameness is indication of actual pain or disease, and although it may disappear with exercise, it must not be confounded with stiffness. There are some forms of lameness which are apparent in the stable only, the movements caused by bringing the patient out of the stable being sufficient to cause the total disappearance of the lameness. Hence, the examiner should see a horse in the stable as well as out of it.

WHIP.

A Class For Greys.

Considering the paucity of grey horses in the Thoroughbred and the higher-class harness ranks, it is interesting to note a class specially for greys at the International Horse Show in London. There was a time when it was a proverb that, day or night, no one could cross London Bridge without meeting a grey horse. It is generally believed—on statistics—that grey horses were much more stout and healthy than any other color. The greys came originally from Cappadocia and Persia, which stock is still found in the magnificent heavy cavalry of the Russians. The greys, says the Sports of the Times, went for weddings, as the magnificent black Andalusians

went for funerals. Yorkshire is the strong grey section of England; the "Tykes" breed to color extensively. Grey Orville, rest his glorious memory, was foaled in the famous West Riding of Yorkshire. He won the great St. Leger, sired Emilius, Ebor, Muley, and others. Browns came from the East Riding, with white locks at the tail, the sign-manual of Woodpecker in the third, fourth and fifth generations. In South Yorkshire reign the chestnuts, representing that magnificent horse Comus, side by side with the rich brown of Tinker, by Tramp. Breeding to "original" color was held in Persia, Russia, and later in England, from the birth of the Pyramids to the end of the sixteenth century, when breeding to type, speed, etc., came in, and the old "color" scheme faded, changed and developed into the present bay, chestnut and brown, leaving scarcely a trace of the primary black and white—if, indeed, black is a color."

Halter-Breaking.

Horses are not naturally vicious, and, with proper attention in colthood, bad habits would never be formed. The habits can generally be broken by intelligent management. A very troublesome habit is that of halter-breaking. Once a horse finds he can break the halter, he is everlastingly at it. To cure the habit is not nearly so easy as to keep the horse from learning it. However, two tried remedies for halter-breakers, suggested by an exchange, are herein given: Horses that are inclined to pull and break their halters when fastened in the stall have often been cured in the following way: Two straps are lightly attached to a rope which passes through a ring fastened in the end of the halter strap. The halter strap passes through a ring in the stall. If a horse endeavors to go backward suddenly, he finds that the harder he pulls the greater is the tendency to draw his fore legs from under him. A few attempts will cure even the worst halter-puller. Another simple and effective method is worked out by the use of a long rope. One end of the rope is first fastened to the manger. The rope is then threaded through the lower ring in the halter, back between the front legs, then over the back and down under the belly, between the front legs again and up through the ring to the other end, and then tied to the halter. The halter-breaker will soon find a surprise in store for him when he leans back against the rope, as the pull comes on his own back instead of on the rope.

For many diseases to which horseflesh is heir, an acre of grass paddock is better than all the drugs in the Pharmacopœia. Grass cures ailments without creating others. Drugs cure, very often, by stimulating or taxing other organs than those affected, thus weakening these and lowering the general vitality. Grass is the great physic, the great tonic, the natural medicine, and free exercise on Nature's carpet will do more for the majority of foot and limb troubles than the average veterinary surgeon, and is much cheaper. Veterinarians have a place, but so has the field.



OLD AND NEW FARM STEADINGS MR. PATTERSON OF BRANDON DISTRICT HAS ERECTED.

STOCK

(Contributions invited. Discussions welcomed.)

Why Canadians Raise Bacon Hogs.

Our correspondent, Thos. S. Davidson, whose contribution appears in another place, asks us a question that others may have in their minds; namely, "Where did the demand for bacon hogs come from?" Those of us who were living in the stock-raising districts of Canada along in the early nineties have a very vivid recollection of the advent of this demand. In those days there did not appear to be a proper distribution of food products. The country seemed to have too much of one thing and not enough of another, and as a consequence some commodities had practically no sale. One of these was fat hogs. The Americans were raising fat hogs and corn enough to supply practically the world's demand for lard and heavy pork. They had very little hog cholera and corn was plentiful. Fat hogs just seemed to grow up in a night in the corn states and overflow to all quarters. Canadian hog raisers were hard hit. The American packers were building up a large trade and Canadian packers could not stand the competition of cheap production and high protection, so looked for markets where the American competition was not so keen. They found them in England and found them large. But the demand in England was for lean pork, so the Canadian farmers set about producing a lean hog and the Canadian packers undertook to sell all that the farmers could produce and the prices looked fair. Those were the days before the invasion of Canada by immigrants, when the home market was of no consequence. Since then there has been a change. The home market has increased and so has the demand for lard. Practically every type of hog is wanted and the packers who are the immediate source of the demand do not put any particular premium upon bacon types.

Whether there is more nutritive strength in an equal weight of ham than in bacon we cannot say, but one thing is certain—the bacon hog is not without a ham, and a variety of ham and bacon is more healthful food than either one used exclusively. The question might also be asked our correspondent, why he or anyone else should advocate the raising of the lard type of hog. Experiments in Canada with Canadian grains show that Tamworths, Yorkshires, Berkshires and their grades make more economical gains than do Duroc Jerseys, Chester Whites and Poland Chinas. Why, therefore, not raise the type that makes the best gains? Of course we do not believe in going to either extreme of bacon or lard types and when a rational average between the two is struck there is not so very much difference between the two types. The main thing is to get prolificacy, good constitution, easy feeding propensities and quick growth. Our Western farmers have not for the present a very discriminating market to cater to and should devote most effort to getting quantity.

The question Mr. Davidson raises about offering prizes at fairs we leave to fair boards to dispose of.

Showyard Strategy and Live Stock Generalship.

To an enthusiastic breeder of cattle there are few things more trying than the showing of his stock to one who has little knowledge or can scantily appreciate a good animal. Who is there among breeders who has not experienced this feeling? Your herdsman draws out what you consider a good specimen, one that you have looked at many times a day and yet can go back and smoke a good-night pipe over him with a keen feeling of pleasure. Instead of any real practical interest being taken in the animal you get a criticism on the shape of the halter, or a statement that Brown or Jones has just purchased a reaping machine with twelve spokes in the driving wheel. On the other hand, who can put a value on the amount of pleasure derived from having a judge's opinion when you submit your pet subject to his inspection. It may be and it often happens that he is not a man of words, but are these needed to fill your heart with pleasure? Not at all; you watch his eye as it dwells on the good points and his hand which seems loath to be withdrawn from the thick skin and mossy hair with its soft mellow touch. If he is a keen critic you expect, and perhaps fairly hope, that one or two of the weak spots you have time and again carefully examined, and perhaps have seen gradually disappearing, may be

overlooked. They are, however, noticed and discussed to the edification of the man at the end of the rope, whose whole soul is in his work, and who there and then resolves that in the show ring "the best side" of his animal will be shown to the judges.

I must tell a tale apropos of this. At one of our largest and most important Shorthorn shows in England I stood watching the judging of a heifer class. One of the crowd around the ring said in my hearing: "If I were the owner of No. 70 I would sack the fellow who is showing her. Look at the way he lets her snuff about with her nose on the ground, trying to get a bite of the short grass; he must have neglected to feed her. What a fool he is." I knew the owner and the man on the rope, two of the best men in the country, each in his own sphere, and I was quite satisfied that the man "at the wheel" was making no mistake, although by the innocent way he looked one could fancy his thoughts were in the clouds. His heifer won and afterwards congratulating him I said: "What was there in the Yorkshire grass that made the pretty lady so fond of it?" With a merry twinkle in his eye, and knowing that I understood that the nose on the ground meant a strong broad level line along the back, whereas in other positions there was a slight tendency to loin weakness, he replied: "Oh, just a little dust of spiced cake which fell through a hole in my jacket pocket; the wife must give it a stitch or two when I get home." I need not say that the owner of the heifer did not sack his man. No blame can be attached to a herdsman who is able to hide a weakness, and it is only a clever one who can hide a fault without making it evident he is doing so.

Look at the herdsman who knows his animal gets his hocks together and perhaps spreads out his hind feet as he walks. See him when asked to lead the animal straight out from the judges—how his light, long-lashed whip is used in a matter of fact sort of way, yet in a way to induce a sort of side walk. You will observe then how soon he considers he has gone far enough, and how, walking back showing a wide deep chest, he crawls to his place at a snail's pace! Or watch how the performance is reversed if the strength is behind and the weakness in front. I remember being much amused at a performance witnessed at a Highland Society's show in Scotland. Jamie, a well-known North Country cattleman, had a pretty roan heifer in the ring, strong in most points except her top line. John Outhwaite, the well-known Yorkshire breeder, was one of the judges and was doing the major share of the work. I was standing against the rail a few feet from Jamie, who stood in front of his heifer with a hand on each side of her head, pressing it downwards and backwards, and thereby getting the back fairly straight. The purpose of the pressure was a little too evident and old Mr. Outhwaite stood for some time looking at the man while poor Jamie never lifted his eyes from the animal's back, which he had manipulated to the position he had considered right. The position of Jamie's burly figure was peculiar, to put it mildly, while the expression of his face, indicating intense anxiety, was most amusing, and was evidently so to the judge. When Mr. Outhwaite moved away, having scarcely looked at the heifer, I said: "Did it come off, Jamie?" "I did him properly," he replied; "he never saw the wee bit hole in her back." I may say, however, that Jamie was less confident about this when the ribbons were handed out. Mr. Outhwaite, who understood all the tricks in showing, and I, had a laugh over the matter afterwards when he repeated a story he was fond of telling of a bartender who, after being a year in the employment of a Yorkshireman, complained he had not been able to make a shilling more than his wages. Wonder being expressed at this, seeing he was a Yorkshireman, he replied: "Ah, my employer is Yorkshire, too!"

Speaking of Yorkshire brings to mind an experience I had as a judge at a show in the West Riding of that country. I acted as judge of cattle, sheep and swine, and was quite puzzled regarding the placing of two of the pigs. I looked long and carefully at them, sometimes thinking of placing the one first and then the other. From the crowd around the ring it was quite evident there was intense interest being taken in the decision and as I afterwards understood bets of new hats and so forth were being freely made on the result. The pigs belonged to working men and each had keen supporters. While carefully inspecting one of the animals the man in charge of it whispered: "This pig has always beaten the other wherever they have competed." Feeling this statement should not have been made and being convinced that the one was as good as the other so far as I could determine, I said: "That being the case it is time to give the other fellow a turn," and at once made the award accordingly. I afterwards learned that at former shows it had been a case of see-saw; they had often been in competition and had each scored about an equal number of wins.

At the Highland Society's show it is usual in the cow classes for the exhibitors to send the calves into the ring with the mothers. As a rule the animals are trained so that the calves lead quietly alongside of their dams. At one of the society's meetings I showed a cow that had an awkward habit of standing stretched out, which led to an indication of weakness on her loins. She had been under training for weeks with a view of making her keep her hind legs under her, without much result. On the judging day I was occupied as a steward in another section of the show and when congratulating my man on his having

secured the first prize I said: "The cow must have shown herself well in the ring." He said: "I made Johnnie lead the calf, look like a fool, and keep as far away from me as he could; the judges said she was an uneasy beast and I put the blame on the silly laddie that would not keep near me with the calf."

ROBERT BRUCE.

Why Should Cattle Be Dipped?

Every stockman is familiar with the skin disease called "cattle mange" or "cattle itch" (Psoroptic mange). It is caused by a small parasite which lives on the surface of the skin and which is in most respects identical with the parasite causing "sheep scab" in sheep. Its presence irritates the skin and the animal begin to rub or scratch the affected parts; this increases the irritation, sores and crusts are formed and unthriftiness sets in. The loss of flesh and subsequent loss of vitality is partly due to the incessant annoyance, but principally to the failure of the animal to provide itself with feed. For hours and hours, they remain at or near their favorite rubbing posts and gradually become so weak, that they are unable to walk any distance for feed and water. They finally get down and unless assistance comes in time, they never get up again.

Another parasite of the skin which, in many places, is of much greater importance than the former, is the cattle louse. Strange as it may seem, but few stockmen are aware to what extent their cattle are affected with lice and what an enormous loss they unknowingly suffer on account of this parasite.

Were it not for the mite causing mange, the winter mortality among the range cattle would be reduced to one-tenth of what it is at present and the enormous loss in weight and condition which every affected herd now suffers during the winter months, would be correspondingly decreased. This statement is based upon actual facts as observed by the writer and by prominent stockmen, who for years have dipped their cattle.

WHAT IS GAINED BY DIPPING?

As long as the grass is green and full of nutrition, it is difficult for either of the above mentioned parasites to gain any headway. It is, however, a mistake to suppose that they are not present on the cattle in summer-time, although the number of cattle affected, and the number of parasites present, are very much smaller than in winter time. As a rule, however, a sufficient number survive the summer to carry the infection on to the following winter. It is a well-known fact that the green grass will improve nearly every case of mange or lousiness, but not all of them. It requires, however, at least one month, and frequently two months, after the appearance of the green grass in spring, before a mangy or lousy herd begins to look thrifty. This period of one or two months is practically lost in recuperation and not until about one-third of the summer is passed do the cattle begin to grow and put on flesh in excess of their weight and condition of the previous fall. It will, therefore, be seen that *when free from mange cattle will be able at least to hold their own through the winter and will be in condition to put on flesh from the moment the fresh grass appears in spring.*

Any herd which at the present time is affected with either mange or lice, should be dipped as early, as their condition will allow. Steer cattle, and bulls, may be dipped at any time, as long as the weather is not too severe, while the breeding stock must wait until the calves are dropped. The entire herd should then be dipped again in the fall, just before cold weather sets in. If this is repeated for two or three years, it is safe to predict that the infection will be entirely eradicated from all ranges where it is not constantly renewed by the introduction of infected stock.

Why Not Lard Hogs?

EDITOR FARMER'S ADVOCATE:

Once again, I will take up the hog question, for it seems to me now is the time (seeing that hogs are such a good price) for such a question. I see all the Canadian stock journals are everlastingly hammering on the side of the bacon hog. Well, perseverance will move a mountain so it is said, but it's a big mountain that has to be removed when you preach bacon hogs to the settlers from the U. S. Now, Mr. Editor, I would like to propound to you a question. Please answer it. Who is it that makes the demand for a certain product, the Epicurean or the working class? Now Canadian papers as I have said before, cry bacon bacon. Agricultural Colleges! The college yell is B—A—C—O—N. Now it's a certain class of people who want bacon, and it must be good. The class of people that yell bacon are not as a rule the men that do manual labor, but they who use their heads to save hands. You take the artizan, the laborer. He wants something more than a slice of bacon for breakfast; a good thick slice of ham, cut from a 300 pound hog, looks more like a meal to him. Then again, if we run everything to bacon, to what price will lard soar, for if the present flood of people keep on coming in from our pie-eating neighbor south of us, it's bound to create a demand for lard, for you can no more easily break a Yankee of the habit of pie-eating than you can of chasing the mighty dollar, for he has been in the habit of having both together, and if he has his dollar, his pie will have to come. Now, Mr. Editor, I will propound another question: Why is it that prizes are always offered for the best bacon hog? Why are not the

Canuks more broad-minded and why don't they offer prizes along more liberal lines? I will suggest this one for instance. Suppose a prize were offered for the best paying sow, with her litter or two litters for the year, scouring to be left out of the judging, just market value alone to be the judge, all breeds, grades and crosses to be open; in other words let the Mr. Dollar be the single judge. Of course this may not meet the approval of the bacon hog men, but if they have such a superior breed they could surely beat us thick hog men to a standstill. Of course it could be stipulated that the sow's first litter should not be over six months old. What we must to get at is a friendly contest to find out the best paying hog for an average farmer. In closing, I would say to the beginner, if you get good grade sows get a good purebred boar, as good an individual as you can afford, for an inferior sow only affects her own litter, but if your boar is inferior your whole crop of pigs will be affected. I have no irons in the fire by saying this, for I simply raise hogs for market.

THOS. S. DAVIDSON.

Alta.

Principles of Shorthorn Breeding.

In the breeding of good Shorthorns, some men have aimed at producing a good type for winning prizes; some look to breeding from a particular line of blood; some pride themselves on having a herd descended from some particular animal; some think nothing of an animal which is not red—all these ideas have led to much notoriety, and some of them to the making of a deal of money, but none of them necessarily to the breeding of right down good, useful beasts.

Suppose a man wants to raise a sire which more or less directly is intended to produce beef cattle, the animal must have a heavy, well-fleshed body on short legs, a fine bone, a tendency to make the best of all the food he eats, and, beyond everything, a stout, hardy constitution. This tendency to make the best of all it eats, combined with a hardy constitution, is the great point; no straightness-of back, roundness of rib, length of quarter, well-filled neck vein, general "smoothness," or redness of color, will make up for the want of a good constitution and a capacity to make much beef or milk out of little food. When an animal combines this constitution with this tendency, we may safely say that it is of a good sort, even if it may happen to be somewhat unsymmetrical. No man need look for lasting success unless he breeds from such a sort.

The power of judging of this goodness of sort in a strange animal is not given to many men, though, by experience and care, most men may learn to avoid the worst kinds, and close observation will soon tell everyone which are the good and bad sorts in his own herd. A certain want of symmetry need not affect the goodness of the sort, but no man can afford to breed unsymmetrical animals, and no one is likely to try, for though this prejudice or that whim has led many a man to breed bad sorts, every one sees the need to do what he can to keep up the desirable points in the general outline of an animal. In estimating the relative value of the various points of form, a prudent man will set a high value on such as indicate a sound and vigorous constitution. Hence, the old-fashioned sneer about kitchen beef will not prevent the very highest consideration for a well-developed fore end and a wide chest.

The great question with most breeders is, "How are we to use the mass of facts which is bound up in our herdbooks? Are we to go in for line breeding? Must every successive sire be of the same tribe? Or are we, while generally standing by some particular line of blood, to allow ourselves such liberty as we can find within these limits, or are we to give our judgment free play, and take a good beast when we find one?" As a matter of theory, the latter plan is, no doubt, the most defensible, but in practice it has serious drawbacks. If our judgment was sufficiently well informed, it might no doubt be right, but that is not often the case. In the second generation an animal has four grandparents, in the third eight, in the fourth sixteen, and in the fifth thirty-two. Everyone will admit that even in the fifth generation the individual qualities of each of the thirty-two ancestors has much to do with the qualities of its descendant; but how many breeders are likely to know the individual qualities of thirty-two animals living some twenty-five or thirty years ago? Hence, a good sire, bred from a good sire and dam, has often proved a snare, not because nature works untruly or because like does not produce like, but because we do not know all the elements which go

to make up the animal we are using. Line breeding, too, has its particular difficulties. A sire bred from animals of his own or closely-allied tribes has comparatively few causes of variation; that is, he is very potent, his capacities are pretty sure to descend; but then, his capacities may be good or bad, and as any good tendency becomes strongly developed, so does any bad one. The number of "blue-blooded weeds" which have been produced of late years, since line breeding became fashionable, is good evidence of the danger which is sure to come unless the system is worked by an unerring genius. Let us take the experience of Thomas Bates; he believed in his own blood beyond any other man. What was his practice? Up to 1823 and 1824 he used hardly any other than Duchess bulls, and it is said that "rickety" calves compelled him to change. Be that as it may, between the years 1823 and 1838 the great bulk of his calves were from Red Rose and Princess sires; between 1836 and 1843 he fell back on the Duke of Northumberland (1940), a Duchess bull, it is true, but with a double cross of a Princess sire and a Red Rose great-grand sire. From 1843 to the time of his death his calves were principally sired by Oxford bulls, some of whose recorded pedigrees would not now entitle them to registration. He was too wise a man to be bound by his own theories.

The best plan seems to be to take the middle course—in a general way, stick as much as possible to animals bred by men who have successfully carried out the idea at which you aim, and, if possible, keep to animals with some blood connection. Similarity in blood is of advantage, as it reduces the tendency to sport, as botanists would say; but do not let a desire to have similar blood confine your judgment to too narrow a circle. When you have a good sort, do not let any prejudice or whim persuade you to part with it. The breeder is the best off who has a herd of sufficiently good character and enough variety of origin to enable him to keep the best of his own produce for his own use, without danger of lessening constitutional vigor; but before a man tries to breed his own sires, let him be very sure that he has the right sort of stuff to work with.

This opinion is no mere theory; it expresses the practice of most of the successful men of old, and in the few instances in which it has been carried out in modern times its safety has been proved. When the men of old found that they had not what they wanted within their own herds, they never hesitated to make a change.

The details of cattle management must vary with climate and soil, but there is one general principle which ought to be kept in view everywhere: Let your plan be as nearly as possible nature's plan. Do not give unduly stimulating food; do not fatten at one time and starve at another; do not expose unnecessarily to extremes of climate, and do not coddle your cattle.

Breeders of Shorthorns have nothing to fear so long as they keep utility clearly in view. Let the proof of the pudding always be in the eating. Aberdeen, Scotland. OLD COUNTRYMAN.

Some English Shows.

THE NOTTINGHAM COUNTY SHOW.

The Nottingham County Show was held last month at Retford. The classification provided for three sets of exhibitors, local, county, and open to all. It is with the latter classes we deal. To summarize is difficult when so many fine animals are in question, but a better lot of Shire horses are seldom met with at any county show, and in some cases the classes were equal in merit to that we shall see at the Royal. Mr. Farnsworth, Mr. F. E. Muntz, Mr. W. T. Everard Lord Middleton, Earl Egerton, Sir P. A. Muntz, Sir A. Henderson and James Forshaw & Sons were amongst the leading exhibitors and winners.

The light horse section was also a very attractive feature of the Show.

The cattle classes, especially those open to the County only, were of most satisfactory description. Quite a number of these entries competed successfully in the open classes, in which the leading winners were owned by Sir A. Henderson, Mr. R. R. Rothwell, Earl Manvers and Lord Middleton, Shenley Baron winning first honors in yearling bulls for Mr. C. S. Raphael.

The old-bull class was a choice one, Sir R. Cooper's white bull Meteor being first and champion; Mr. Rothwell's Strowan Marquis 13th came in second with Lord Middleton's Illustrious Count third.

A class of special merit was that of heifer calves. The competition was very keen, Sir R. Cooper, Messrs. S. E. Dean & Sons, G. Harrison and Captain Harrison being the winners.

Twenty-four yearling heifers made a very strong class, Buscot Truth taking the leading honors for Sir A. Henderson, followed by Gainsford Fragrance as the second winner for Mr. G. Harrison.

The three-year-olds were a beautiful lot, the winner, Lady Graceful, being of specially high merit, and Mr. R. R. Rothwell sent her out in grand form. Ursula Raglan won first honors for Mr. G. Harrison in the cow class, and Towy Princess took the second place for the same owner.

There was considerable competition in the pig classes. The Large White breed was well represented. Messrs. D. R. Daybell, J. Tong Conningsby and W. E. Measures were the principal winners for boars, the last named winning champion honors. These honors for females were won by Mr. R. Middleton Knowles, and Messrs. W. B. Wallace and W. E. Measures were the other principal winners.

The Lincoln sheep classes formed a very important and attractive feature at this show. First honors for yearling rams and ewes went to Mr. Henry Dudding and his yearling ram is probably one of the best he has ever exhibited at this age. Mr. T. Casswell was second and third for yearling rams and second for yearling ewes—choice and typical pens in each instance. Third and reserve honors went to Messrs. S. E. Dean & Sons, whose sheep are of good merit. Sir Richard Cooper won first honors for yearling rams and yearling ewes in the Short-wooled classes.

THE WILTSHIRE COUNTY SHOW.

This show was held at Devizes, and was given a very hearty welcome, and the quality of the stock exhibited was fully satisfactory particularly those sections of it that were more or less limited to the County. The most important section was that for Hampshire Downs sheep. These came out in full force, with very keen competition. In the yearling lamb class Mr. H. C. Stephens went to the fore, followed by Mr. James Flower and the Marquis of Winchester. In the lamb classes, which were very good indeed, Mr. James Flower won champion honors, reserve champion honors, first for pen of three ram lambs, second for single ram lambs, and first and second for yearling rams—a notable series of successes, and one fully deserved by the merit and character. The Marquis of Winchester, Mr. H. C. Stephens and Sir W. G. Pearce were the other leading winners.

The Shorthorn classes were very representative of good strains of blood. Lord Calthorpe's Elvetham Monarch was the champion bull. His Lordship, Lord Wolverton, with Messrs. J. Deane-Willis, W. Nicholson and S. Dennis, were the owners of the leading animals.

Messrs. Pocock, J. Joicey, Mrs. McIntosh and Lady de Rothschild shared the honors in the excellent Jersey classes.

THE SHROPSHIRE AND WEST MIDLAND SHOW.

The feature of this annual show, held at Shrewsbury is undoubtedly the very strong competition in the classes for Shropshire sheep. At no other show, save the Royal, is the competition anything like so keen. This year the Mansell Memorial Challenge Cup, the Blue Riband of the Shropshire contests, went to Mr. M. Williams for a beautiful and typical yearling ram. Sir Richard Cooper's two-shear ram, first in its class, was reserve number for this honor. Two yearlings also owned by Sir Richard Cooper, were second and fourth in their class. The intervening third place was occupied by a fine masculine sheep owned by Sir P. A. Muntz. Sir Richard Cooper was first and second for pens of three yearling rams, pens of five yearling ewes, an honor and success few others breeders have ever attained. Mr. Victor Cavendish, M. P. was third in each of these classes. In the lamb classes, both for rams and ewes, Sir Richard Cooper was first again. The other leading winners in these classes were Messrs. Minton, E. Nock and the Duke of Sutherland. The competition in the local classes was very keen, and quite a number of real good sheep were found therein.

The Shire horse classes were very good, the younger classes particularly so, Mr. E. Muntz's King Forest adding still another success to his already long list of honors. Sir P. A. Muntz owned the winner in the yearling class.

Shorthorn cattle were not largely represented, but their quality, type and character left but little to be desired. Linksfield Champion, Mr. Miller's bull was first and champion. Mr. Richard Cooper took second and third in the same class for stud bulls, and led in the yearling bull class with Shenley Duke. The female classes were very even, the Earl of Powys and Sir Richard Cooper taking the leading honors.

The Hereford classes were very good indeed. Protection, owned by Messrs. P. & G. Hughes, occupied the leading position in the old bull class. Samson, owned by Mr. D. A. Thomas, was first in the yearling class, followed by Viscount, owned by Mr. Butters. The Earl of Coventry won in the cow class with a beautiful animal named Madame. Mr. Tudge won with Princess Beatrice in two-year-old heifers, and Lemster Plum, a beautiful, symmetrical heifer, won first honors in the yearling class for Mr. A. E. Hughes.

W. W. C.

A Red Poll Gets to the Front.

At the Wisconsin Experiment Station a herd of cows are kept and their yields recorded, as is the cost of feed, etc.. The list includes seven Jerseys, eight Guernseys (two grades), eight Holsteins (one grade), three Shorthorns (one grade), four Red Polls (one grade), and two Brown Swiss. Of this number thirty cows completed a year's record on May 16th, 1906, the close of the period considered in this report; complete data for the winter period from November 15th, 1905, to May 16th, 1906, are at hand for the same number of cows.

The report says: "The Red Polled cow Lady this year again leads in economic dairy production, being credited with a net profit for the year of 69.81 and the total production being 11,287.5 pounds of milk and 449.73 pounds of butter-fat, equivalent to 525 pounds of butter. The value of her production, figured at twenty cents per pound for butter, and fifteen cents per hundred pounds for skim-milk, amounted to \$118.55, and the cost of the feed which she ate during the year amounted to \$48.74. This cow has made a remarkable record during her life in our herd, as will appear from earlier accounts of these investigations. During the first year with us she produced, as a four-year-old, 384 pounds of butter-fat, and her production for the succeeding years (1902-1906) has been as follows: 449, 493, 416, and 450 pounds, an average of 438 pounds of butter-fat for five years, equivalent to 511 pounds of commercial butter. While she has generally ranked first in production and in net profit among the cows in our herd, she has not been an expensive feeder. During the past year she ranked fourth in the cost of feed eaten.

FARM

(Comments upon farming operations invited.)

A "Bear" Report from the Argentine.

The Miller (British) announces that it has received a large amount of authentic evidence upon crop conditions in the Argentine and from these deduces the fact that owing to the larger area recently under cultivation, and to the heavier and better quality of the grain, the total exports will more than equal those of a year ago, and that the high quality hitherto shown will be maintained right to the end of the shipping season. Authentic reports are being used extensively by both sides of the market to affect the current prices of futures.

Option Dealing Under Discussion.

The International Agricultural Congress, which began its sittings a few days ago in Vienna, is the eighth of a series inaugurated in Paris in 1889, at the time of the Exhibition. The delegates were then unanimous in deciding upon a continuation of these meetings, so as to get together at regular intervals the most prominent men connected with agriculture of all nations, and the exchange of ideas has been very beneficial. Following upon some words of welcome by the Austrian Minister for Agriculture, who opened the session, M. Meline opened the Congress by giving a short survey of the work done by former sessions, and explained the reasons which induced the selection of Vienna as their present meeting place. The Congress is divided into various sections each with its allotted task. The first section will devote itself to the economic questions, amongst which will be debated the solution of the transactions in futures. This matter is already largely discussed in the Austrian press, and has lately taken a prominent position, in view of an incident on the Vienna Corn Exchange in connection therewith. The result of the prohibition of dealing in futures in Austria has had the result of simply causing speculators, wishing to continue the business, to do it through the exchange or bourse of a neighboring state. The controversy for and against this prohibition attracted the notice of the Congress, and even if the debates on the subject do not have the desired result, no doubt certain points were raised which may eventually lead to some change with regard to this matter.

Farming from a Boy's Standpoint.

One of our contributors, Mr. A. Switzer, who farms in one of the oldest settled districts in Saskatchewan, suggests that the farm boys who are just through with school use the columns of the FARMER'S ADVOCATE to discuss what they think of farming as a life's work. The idea seems to us to be a good one, for although we are apt to think lightly of the boy who bounces around free from care, and apparently indifferent to what is before him, we also know he has his serious moments and his opinions are often seasoned by a broader experience than those of boys who grow old before their years.

Boys require to be impressed with the advantages of farm life and with the demands it makes upon their executive ability. They need to be shown that for the man who has constructive genius and a broad capable mind there are as large fields for accomplishment as in any other pro-

fession. That though the remuneration may not be so large as in some stock brokerage or commission business or a manufacturing industry, still there is plenty, and the work may be made infinitely more enjoyable. There is this further advantage in farming, that although it is pursued by many clever men and many advances have been made, there is still scope for infinite progress and a field for the most subtle originality. The urban professions are inviting for the man who is fond of work and care, but they are exhausting in the extreme and soon sap one's vitality.

The boy who has a chance to farm should avail himself of it and should endeavor to induce others to do likewise.

* * *

His Honor Judge Phippen has granted the application of the Manitoba Government to appeal its case against the Grain Exchange. The case will accordingly go to a higher court.

Artificial Cultures not a Success.

The twenty-third annual report of the Wisconsin Experiment Station contains the following testimony from the agronomist on the utility of artificial cultures:

The results which have been obtained are in accordance with those of previous years. The use of these artificial cultures for the production of nodules upon soy beans and alfalfa has not been successful, as no nodules were to be found upon the soy beans and upon the alfalfa grown from seed inoculated with artificial cultures. Unfortunately no conclusions can be drawn from the trials made on red clover and field peas with the Canadian cultures, as the soil of the trial fields proved to be well stocked with the organisms able to form nodules upon these legumes. It is asserted that the trials made in Canada with these cultures have been quite successful.

The results obtained in the trials made during the last three years with artificial cultures are in accord with those obtained by numerous experiment stations throughout the country. Maine, Oklahoma, Pennsylvania, and other stations have reported negative results.

The inoculation of alfalfa and soy beans with infected soil has been very successful, nodules being produced in abundance the first year. It is generally asserted that in order to have a thorough infection of the plants, large amounts of soil must be applied, thus making the process of applying it cumbersome and expensive. This objection is possibly well taken so far as alfalfa and similar crops are concerned, which are not sown in drills. In the case of soy beans and like crops, a small amount of well infected soil, when sown in direct contact with the seed, is able to thoroughly infect the plants the first year. On the experimental plot seed was sown at the rate of one-half bushel per acre and an equal amount of soil sown directly in the drill row. The abundance of nodules on all plants shows the efficiency of this method.

Thus, for a large number of leguminous crops, the inoculation with soil requires no more work than the use of artificial cultures, and the usual objections, viz., introduction of plant diseases and weeds, which are urged against the use of soil, do not seem to the writers to have much force. In the use of soil for infecting purposes, care should be taken to use only the soil from fields that produced during the previous year an abundance of nodules on a crop of the legume in question. The organisms seem to disappear from the soil unless the legume is grown at frequent intervals.

The conclusions which were given in the Twenty-Second Annual Report were based upon the use of dried cultures. This year's trials with liquid cultures however, show practically the same results, and until artificial cultures can be made more certain and effective, it does not seem advisable to recommend their purchase for general use. Especially is this true when the expense connected with their use is so considerable as at the present, and when the question-

able value of cultures to be found on the market is considered. Nineteen cultures from three firms were examined by the Bureau of Plant Industry, Department of Agriculture; six were found to be good, three fair, two poor, and eight worthless. This would indicate that over fifty per cent. of the farmers who have used commercial cultures have had their trouble and expense for nothing.

Wheat Harvest Calendar.

January.—Australia, New Zealand, Chile, Argentine Republic.

February and March.—Upper Egypt, India.

April.—Lower Egypt, India, Syria, Cyprus, Persia, Asia Minor, Mexico, Cuba.

May.—Texas, Algeria, Central Asia, China, Japan, Morocco.

June.—California, Oregon, Mississippi, Alabama, Georgia, North Carolina, South Carolina, Tennessee, Virginia, Kentucky, Kansas, Arkansas, Utah, Colorado, Missouri, Turkey, Greece, Italy, Spain, Portugal, South of France.

July.—New England, New York, Pennsylvania, Ohio, Indiana, Michigan, Illinois, Iowa, Wisconsin, Southern Minnesota, Nebraska, Upper Canada, Roumania, Bulgaria, Austria, Hungary, South of Russia, Germany, Switzerland, South of England.

August.—Central and Northern Minnesota, Dakota, Manitoba, Lower Canada, Columbia, Belgium, Holland, Great Britain, Denmark, Poland, Central Russia.

September and October.—Scotland, Sweden, Norway, North of Russia.

November.—Peru, South Africa.

December.—Burmah, New South Wales.

Dr. Hopkins Goes with the Government.

On June 15th Arthur G. Hopkins, B.Agr., D.V.M., severed his connection with the FARMER'S ADVOCATE AND HOME JOURNAL. For two and a half years Dr. Hopkins has been editor-in-chief of this paper, during which time it has widely extended its circulation, increased its advertising patronage and become established in its present modern home. As a journalist and agricultural authority Dr. Hopkins is known in Canada from coast to coast. His work has always been characterized by personal vigor and conscientious conviction even to the extent of adversely criticizing his best friends. His opinions, however, have been universally respected for their honesty, fairness and unselfish objects. The FARMER'S ADVOCATE has benefited by them and through Dr. Hopkins' association with it.

For the present Dr. Hopkins will be associated with Dr. Rutherford, Dominion Live Stock Commissioner, in certain new work the Department is undertaking in the interests of Canadian stock-raisers. His headquarters will be in Ottawa, but his work will take him to all parts of Canada and occasionally to foreign countries. The best wishes of the FARMER'S ADVOCATE go with him as do also, we are sure, those of its many readers.

Prairie Home Sale.

The 5th annual sale, which was also a dispersion sale, of purebred stock at "Prairie Home," was held as per advertisement on June 13th, at Crystal City. The weather was perfect and a large crowd attended. Prices were good for Clydesdales and a respectable average was made for Shorthorns. A Clydesdale filly two years old brought \$555. Twenty-five Shorthorns females averaged \$149 and eight bulls \$105. This is announced to be the last of Prairie Home auction sales, but there still remain a few Shorthorns and Ayrshires to be disposed of. The passing of Thos. Greenway's herd from the ranks of active breeders marks an epoch in the Shorthorn industry. Few men have contributed so largely to the popularizing of Shorthorns in Western Canada and few herds there are that do not possess representatives of Prairie Home. The fraternity of Shorthorn breeders tender their appreciation of Mr. Greenway's efforts in the past and join in wishing him extending fields of usefulness.



THE SHACK AND THE HOME

Marking the Progress of Mr. Douglas, East of Indian Head.

More on the Weed Nuisance.

EDITOR FARMER'S ADVOCATE:

In going through different districts I have often asked the farmers what was their worst weed. It was generally mustard they were afraid of, and I have seen land so yellow with this pest that I should not care to have it to work. My own district used to be bad with blue burr, and it certainly was a nasty thing to have around, but of late years it does not seem to have thriven so well and is not much seen. One thing we noticed three years ago: A hairy caterpillar attacked the burr weed. These caterpillars came here in swarms just when the weed was in flower and stripped it to a bare stock, and that was the last year we saw so much of it.

I think I am safe to say the wild oat is giving more trouble now than anything else, and as long as some of our farmers farm as they are doing, the oat will have a good chance to live. I have seen any amount of seed put in the ground full of wild oats, but I think most of the farmers are trying their best to put them out of existence.

Bad weeds seem to travel fast. The water running all over the country in the spring I put down as the worst way of spreading them. I had myself both wild oats and mustard on land the first year it was broken. The usual way here is to disc the land in the fall and plow late in the spring after the oats have got well started; then sow to barley and cut as early as possible, and this seems to rid them out pretty well. I have given them a bad check by an early summer-fallow and keeping the cultivator moving often after, and again by plowing early and shallow, then deep later on, but I do not care for two plowings if it can be avoided.

One hears a lot about wild oats lying for years in the land. I do not think this is so, and I have seen land that was bad with them seeded down to grass (timothy and Western rye). There was a lot of oats in the first crop of hay, some in second, and none in third. The land was then plowed as summer-fallow about seven inches deep and well worked. It yielded 24 bushels of wheat to the acre and I have seen no oats there yet.

But this not the only thing. What is the use of trying to kill them out of the land when the horses doing the work are fed on oats of which a large percentage are wild? The feed must be crushed and well crushed too. I like a plate crusher, as everything that goes in has got to be crushed. With the rollers there always seem to be some let through. Our country is very flat and there is a lot of flooding in the spring. I have seen foul seeds of all kinds lying inches deep on land which the owners were doing their best to keep clean and it must make one feel as if their efforts were in vain. Threshing machines also carry about a lot of dirt. I believe there is a law enforcing them to clean out their machines, but I have never seen it carried out. Stray animals also will have to be checked and one sees fences going up everywhere. This I believe to be one of the best things a farmer can do.

Wallace Mun., Man. RICH D. J. HAMILTON.

EDITOR FARMER'S ADVOCATE:

There are a great many varieties of weeds in this district, but they are well under control and have not caused much damage to the crops except the wild oats. This weed has spread very fast over the farm in this part and is to-day the worst weed we have to deal with once it gets into the land and not attended to it will crowd out all other grains and will even crowd itself, so as to be dwarfed in growth. The seed of wild oats matures before the wheat or oats ripen and shells out. This leaves the land seeded with this weed for the next year. It will lie on the ground and not germinate until buried. But bad as this weed is, I believe it is the easiest to exterminate or I should say to keep under control. In the first place all seed should be perfectly clean of oats being sown. In the second place all feed used for feeding horses should be clean or else chopped, as many horses do not grind their feed well enough to destroy the wild oats. Thirdly, the land intended for summer-fallow should first be plowed shallow two to three inches deep or randed sufficiently to cover the wild oats; then left until the seed germinates and shows through the ground. Next it should be plowed from six to seven inches deep; then cultivated by randing, harrowing, or shallow plowing so as to keep the land clean. Following this system of cultivation every two or three years there will be no trouble with wild oats. There is one other weed I would like to mention. It is the Canadian thistle. This weed is hard to get rid off when it spreads over the land, but is not so hard if taken when in small patches. I have destroyed several of them on my own farm by digging the roots out with a spade and scattering them to the sun to wither and die. Be sure to go to the bottom of the roots—they are not very deep. When the patch is small, it pays to destroy them then and will not cost much. If not dealt with then they will very soon spread and damage the crops.

Sask. A. SWITZER.

EDITOR FARMER'S ADVOCATE:

In regard to the most common weeds infesting this locality I can safely say that we have a little of almost all kinds, but they are being kept within bounds on almost all the farms. The wild oat is getting quite common; also the blue burr which is a fast

spread on account of its adhesiveness. The Canada thistle is to be seen in too many places, but is not general yet. Tumbling mustard is everywhere, but is not considered among the worst weeds, its worst fault being that it will not stay where it grows, but must roll over to see all its neighbors. Hare's ear mustard appears to be a stayer wherever it has got a strong foothold. It is not one of the worst to injure the crop, though stinkweed is not very plentiful in this locality and think it is the one which is most dreaded by our best farmers. A small patch can easily be pulled and got rid of by watching it once in a while during the growing season to see that no plants are left to go to seed. There are several other kinds of weeds to be found here; such as, cow cockle, ball mustard and shepherd purse, but none of these have become general. I consider our worst weeds are stinkweed, Canada thistle, blue burr and wild oats. They are all bad to spread by stook teams and threshers going from one farm to another without cleaning racks or separators, which they should be made do. All weedy straw-piles should be burnt without delay.

There are weed inspectors appointed to see after and locate the weedy farms, but we see very little of them. I expect they always get their salary though. A large average is followed here every year and this is the most general way of keeping down the weeds. Burning off the stubble is a good cleanser of weeds as well as insects. Harrowing the growing crop is not general here so far, but some have experimented a little in that line. The average harrow appears to be too heavy for our loose soil.

Seeding to grass to clean the land is becoming more common and gives good results these years when hay is in demand at paying prices. Timothy is taking the lead in grasses. Some patches of clover are being tried this year. What our country needs to-day is good farmers who will take interest in keeping their land clean and making it produce satisfactory crops.

Sask.

JNO. DEYELL.

Portage Show Breaks into the King Row.

The Central Manitoba Fair at Portage la Prairie is offering good prizes for live stock. The show at the Island Park ground is July 9th, 10th, 11th, just the week before Winnipeg.

Mammoth Clover Seed.

Mammoth clover usually fills well, the exceptions being where it is on rich bottom land or on very rich hill land, or when the season is wet, or when for some reason there is a scarcity of bumblebees or Italians and their hybrids.

The first thing to do, therefore, if it is proposed to cut it for seed, is to ascertain whether it is well filled or not. Remember that mammoth clover is about three weeks later in blooming than red. After it has been in bloom a week or two go into the field, take a handful of heads as they come from different sections, sit down in the shade, take a sharp pen-knife, cut half of each side, the cut being made so as to cut the seeds in two. Then by pinching them with the left hand you can count the seeds on the part that has been cut. If you have from thirty to forty seeds to the head and a good stand, you had better use it as a seed crop.

Don't undertake to cut it till the heads are nicely browned. Then if you can get an old-fashioned self-raking reaper, do so. If not, take a binder, detach the binding arrangement so as to throw the clover off in gravels. Some take a mower, fasten a twelve-inch board behind the cutter bar, and have a man following who rakes it up into gavels, letting it lie in the gravels, until it is thoroughly dry. In exceedingly

hot weather this might occur in a week, and may not occur for a month. Don't worry about it. There will be no waste to it unless it lies on the wet ground long enough to allow the clover to grow up under it, in which case the gravels should be turned over with a barley fork.

When it is fit to thresh, get a huller and thresh direct from the field. Three bushels per acre is a fairly good crop. We have had as high as five but this is extraordinary. You are quite as likely to get one and a half or two. We always felt that our mammoth clover crop paid us well when we got from twenty to twenty-two dollars per acre for the seed.

Mammoth clover unless grown on very thin land and mixed with timothy does not make good hay. It is too coarse. Where it is not needed for hay and the intention is to grow corn next year, plow any time you like in September or October or November, but always plow it in the fall, and plow deep so as to cover it sufficiently, and allow it to rot. If you plow that great mass of stuff under in the spring, and dry weather follows, you miss a corn crop from drouth. There is no danger, however, if plowed in the fall, as this will give time for the mass to decay.

DAIRY

English Pastures: Fodder for Cows.

EDITOR FARMER'S ADVOCATE:

I enclose a cutting from the *Chester Chronicle* (Eng.) dated June 1st, 07, giving particulars of a visit of Essex farmers to the county of Chester. I thought some parts of this might interest some of your readers who have a fancy for dairying, especially the following excerpt:

"What impressed them more than anything else was the examination of an eleven-acre field of pasture land, which Mr. Young explained was a phenomenal field owing to its remarkable productivities. It carried every year 18 dairy cows, seven two-year-old heifers, four horses, and a flock of sheep, occasionally, and then the mowing machine had to be run over it to keep the grass down."

We in this country are simply not in it for pasture with the English farmers. Only yesterday a neighbor was saying to me she was afraid she would have to look out for new pasturage for her cows, as the section, 640 acres, she had had the use of, would be no good, as 67 additional head would have the run of this section this year, but altogether I do not suppose the whole 640 acres is carrying more than 150 head.

I have just finished seeding 5 acres of fodder corn for winter use and am going in for grasses for summer. My opinion is that manure and lots of it is absolutely necessary for grass. The great trouble in dairying is the high price of lumber, heavy prohibition and it is useless trying to keep dairy cattle without suitable shelter. Fancy \$20.50 per M for shiplap and so thin that you could snap it across your knee. I would suggest that you make a specialty of concrete or some substitute for it for farm houses and buildings in your journal. It is my ambition to put up a concrete barn so the lumber dealers can keep their lumber.

Gilbert Plains Mun. Man.

J. R. D.



MISTLETOE ECLIPSE.

The new head of the Fairview Herd of J. G. Barron, Carberry, Man.

Making Dairy Farmers.

The "dairy special" which is touring different parts of Manitoba this week should accomplish something in the way of directing attention to the profits to be made from dairy cows and this is one of the things that the industry needs most. There is good money in dairy farming in almost all parts of the West, even taking into consideration the cost of labor, for feed can be grown plentifully and the market is broad as well as high. One of the great drawbacks to dairying is that it is not pursued in a businesslike way. There is not enough wholesale enthusiasm in dairy work. Dairy farmers have not been numerous among the immigrants who have come to the West, but what expanse dairying has made in recent years has been due almost wholly to the efforts of dairy farmers from foreign countries. These people understand their business and are making well out of it, so well in fact that the provincial Government might well lend its help to the agricultural college in another way, by exerting itself to secure immigrants more particularly from the dairy districts of Minnesota, Wisconsin and Eastern Canada.

In the work that the provincial departments of agriculture are doing the public should take serious interest. They are not trying to foist a new fad upon the public, but are earnestly showing what advantages there are in dairy farming and explaining the way to success.

POULTRY

Lice in a Hen House.

Our henhouse and hens are infested with hen lice. Will you kindly give a name or recipe of any mixture that would rid us of the horrible pests? Thanking you in advance.

J. W. P.

There are two classes of external parasites of poultry, lice and mites. Of lice alone there are nine varieties attacking poultry, according to one authority, Dr. Woods. With two exceptions, each has a favorite part of the fowl's body which it inhabits in preference to other parts, but all these varieties look more or less alike to the average poultry-keeper. Contrary to popular opinion, they do not suck the blood of their victims. Their mouths are made for biting and chewing feathers and the scales of the skin. They are a source of much irritation by their constant running about and scratching the skin with their sharp claws. If present in considerable numbers, they may so worry and irritate the bird as to cause sickness. It is considered probable, also, that they carry infectious matter from sick fowls to well ones. The favorite seat of attack of the most common variety of lice is the down feathers immediately under the vent where they may cause so much soreness as to result in indifferent or improper intercourse, the consequence being infertile eggs. In young chicks they cause dumpyishness, drooping wings, indifference to food, and, if very numerous, may stunt or kill the chicks. It is stated on pretty fair authority that every adult fowl is more or less lousy, and it is a good plan to treat all with suspicion, as lice may be troublesome when least suspected. Examine carefully feathers about the head, look under the large wing feathers next the shaft, then turn the fowl up quickly and examine the feathers and skin beneath the vent. If quick enough, you will probably find them on every fowl examined. The presence of one or two need not cause any alarm, but if a large number are found, means should be taken to get rid of them.

PREVENTION.

One of the best means of keeping this pest down is the dust bath. The dust bath should be "dust" in name only. Fowls will wallow and dust themselves more often and to better advantage if they are provided with a wallow of soft, easily friable, slightly damp earth. This should be provided for them out of doors in some sheltered spot in the summer time, and in one corner of the house in winter. When fowls are exercising freely and seem to frequent the dust baths, or wallow and enjoy themselves therein at frequent intervals, there will seldom be a dangerous number of lice present.

TREATMENT.

Dusting fowl with a good lice powder that contain a considerable percentage of tobacco dust is an effective means of getting rid of vermin, but it is too tedious to be used where a large number are to be treated. A good liquid lice-killer is an efficient means of fighting lice, and is easily used.

Two good dusting powders can be made as follows: Add one-half an ounce of ninety-per-cent. carbolic acid to a peck of freshly air-slaked lime and stir thoroughly; or, take sifted coal ashes, one half peck, four

good ounces of any good light liquid lice-killer, mix thoroughly, and then add tobacco dust bulk for bulk. In using dusting powders, they must be thoroughly worked into the feathers, down to the skin, if they are to be efficacious, and it will be necessary to dust regularly at weekly intervals for at least three dustings in order to get rid of the successive crops of lice.

Liquid lice-killer may be used on the roosts and dropping-boards, or the fowls may be placed in a box, the floor of which has been painted with the liquid, and a box lightly covered with burlap to confine the bird and partially prevent the escape of the fumes of the lice-killer, at the same time allowing sufficient air for the fowl to breathe. As the nits or eggs of lice hatch in about a week after they are laid, and as lice mature in from one to two weeks, one treatment with the lice killer will not be sufficient to get rid of them, since the young lice will be newly hatched every few days and several treatments given at weekly intervals will be found necessary.

Another authority recommends the use of mercurial (blue) ointment, a portion about the size of a barley corn divided into three or four parts, placed under the rump, the wings and the fluff. Yet another treatment is the use of insect powder. In the evening the fowl is quietly taken from the roost and held by the legs, head downward, when a few pinches of insect powder are thrown under the wings and rump, on the back and head, and the bird quietly replaced upon its roost.

MITES.

There are several varieties of tiny blood-sucking mites to be found in carelessly-kept poultry houses. They are white or greyish in color, except when filled with blood, when they vary from red to black. They will attack sitting hens, frequently worry hens so much as to drive them from their nests, and kill young chicks. When mites are discovered, vigorous means should be adopted to get rid of them.

Treatment.—The fowls should be treated with a liquid lice killer and removed to other quarters. The poultry-house should be subjected to a thorough cleaning and the free use of some good disinfectant or lice-killing fluid. In some cases it will be found necessary to fumigate the house thoroughly with burning sulphur. Liquid lice-killers should be freely used on the dropping-boards and roosting poles. Even if you are positive there are no mites in your poultry house, it is a wise plan to inspect the roosts and dropping-boards carefully at regular intervals to make sure that they have not invaded the premises, as they are frequently brought into the poultry-house by wild-birds, like sparrows, or may be brought in in litter material or by rats or mice. There are several varieties of these blood-sucking mites, of various sizes.

THE SCALY LEG MITE.

A very troublesome enemy to poultry is the scaly-leg mite, which produces the unsightly disease known as scaly leg. To get rid of these pests keep the poultry-houses clean and wholesome, and use liquid lice-killers frequently about the roosts and dropping-boards.

To cure scaly leg, one of the best means is to make a saturated solution of naphthalene flakes in kerosene (coal oil), and dip the fowl's legs in the solution several times, at intervals of two or three days, until the crusts are all easily moved. Three or four dippings will usually cure a severe case. Another good remedy is to use an ointment made by mixing a teaspoonful of coal oil with a cupful of lard, applying

it freely. There are a number of insects which affect poultry, not so common as the foregoing, but the remedies advised will be found effective in treating all of them.

More "Don'ts" for the Poultry Raiser.

Don't forget to take notice which pullet is roving out from the hen house early in the morning; she is generally a money maker.

Don't forget to notice which pullet stays out late at nights, for generally she too will do her share of the laying.

Don't forget to get your fowl house ready ahead of time as your pullets will lay better this winter if moved in early.

Don't forget when looking it over to provide lots of light; it will help turn the scale on the profit side.

Don't think when harvest time comes if your young chicks wander into the wheat field that they are eating their heads off. The chances are they will be eating a good many dollars into your pocket.

Don't forget that a mature pullet when snow comes is the one that is ready and able to lay if you give her a chance.

Don't forget when buying that Shorthorn heifer or brown Clyde filly that your wife might appreciate a trio of Barred Rocks or Buff Orpingtons, and buy them good.

Don't think for a minute that there is no science in breeding good fowl. Try raising a prize winner for the winter fair, and see.

Don't be above going to your neighbor who makes his hens pay a good profit and get a few pointers. Be care ful and take care of the things of small value (the hens).

H. E. WABY.

Horticulture and Forestry

Storing Potatoes.

A correspondent in Manitoba asks for suggestions on how to arrange to store some 10,000 bushels of potatoes over winter so as to put them on the market in the spring.

This is a matter with which we have had very little experience and would like to hear from those who have stored potatoes how they manage with them. A year or two ago we met in with a man who stored a large crop in the bank of a ravine and covered this pit over with a straw stack, but the place proved too warm and the potatoes did not keep well. To build a cellar large enough to hold that amount would be quite an expense and if any of our readers have had experience with storing in pits we would be glad to know how they cover them.

Fruit Prospects in the Red River Valley.

It would be hard to conceive of more favorable weather for the setting of fruit bloom than we have had the past few weeks. There has been no frost since the plants came into bloom and bushes, canes, vines and trees have flowered in the fullest profusion. The Buchanan orchard, and the orchard at the "Hermitage," both out near Headingly, are the resorts we visit to observe



G. PATON'S APPLE ORCHARD IN BLOOM NEAR ARMSTRONG, OKANAGAN VALLEY, B.C.

the prospects for fruit, and in both these plantations there never was a more lavish promise of a full crop. Currants, gooseberries, raspberries, strawberries are all setting and at Buchanan's St. Charles' nurseries, some 400 trees of apple, plum, and cherry give every prospect of fruiting. Several seedlings of apples and plums which may produce something of value in this climate are among the tree fruits that are in full bloom.

FIELD NOTES

Events of the Week.

CANADIAN.

In spite of the \$500 head tax sixty-six Chinamen entered Canada by way of Vancouver last month.

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Prince Fushimi of Japan while at Gleichen, Alta., presented the chief of the Blackfoot Indians who surrounded his car with a gift of one hundred dollars.

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Floods on the Saskatchewan River swept away thousands of logs belonging to Edmonton lumber companies.

* * *

The experiment of raising oysters in the waters surrounding Vancouver Island is being tried. The oyster eggs were brought from the coast of Connecticut and Massachusetts.



ARTHUR S. GIBSON,
Ruddington, Nottingham, England.

Who is to Judge Clydesdales, Shires, and Shorthorns at
Winnipeg Industrial Exhibition.

Two coaches and a dining-car were blown from the track near Francis, Sask., in a terrific windstorm on the 16th. Eleven people were injured, but none fatally.

* * *

Bush fires in New Ontario are doing an immense amount of damage. Trains have been delayed by the burning of bridges, and construction camps have been wiped out.

* * *

Sir Robert Bond, Premier of Newfoundland, who has been in England at the Imperial Conference, has returned to the Island. He has tried during and since the Conference to have the Newfoundland fisheries dispute submitted to arbitration, and suggests the Hague Tribunal.

BRITISH AND FOREIGN.

The United States has asked the consent of Great Britain to put another warship on the Great Lakes for training purposes.

* * *

Premier Botha of the Transvaal announced in Parliament that the Government intended to send home all Chinese miners as soon as their contracts expired and to secure Kaffirs in their places. Mine-owners fear that the Kaffirs' lack of energy will make them poor substitutes.

* * *

President Roosevelt, through Secretary Root, has notified the Chinese minister that, with the approval of Congress the United States would voluntarily relinquish all claims to the indemnity resulting from

the Boxer rebellion in 1900, except the actual expenses incurred. The sum over and above the expense account is set at \$27,000,000.

* * *

The Russian Duma has been dissolved by imperial decree. The dissolution is the result of the refusal of that body to permit the arrest of certain of its members on a charge of conspiracy. The demand was made by Premier Stolypin. The new Duma will meet November 14th of this year, and members of it will be chosen under the new election law, which provides against the "submergence of the educated classes by the uneducated masses."

* * *

Narbonne, France, the center of the wine-growing district, has been the scene of bloodshed and rioting. The strikers guarding the home of their leader, the mayor of the town, were scattered by troops and the mayor arrested. Then the mob became disorderly, a secret police agent was lynched and policemen were clubbed. The soldiers were forced to fire on the crowd and several were killed and wounded.

* * *

The second Peace Conference opened at the Hague, Holland, on the morning of June 15th. After the speech of welcome by the Netherlands foreign minister, Monsieur Nelidoff, head of the Russian delegation, was unanimously chosen president of the Conference. His opening speech shows clearly that Russia stands opposed to the discussion of disarmament, a condition deemed unattainable and like a "star floating far above this mundane sphere." Germany and Austria agree with Russia, but Great Britain and United States are dissatisfied at the attempt to shut out the discussion of this subject. There are two hundred and thirty-nine envoys, representing forty-seven powers. The present position on the chief matters for discussion stands about as follows: First, unfavorable or indecisive, action on limiting armaments; second, moderately favorable, action on extending arbitration; third, favorable, revision of rules of warfare; fourth, discussion and possibly conservative action on the Drago doctrine in a modified form.

Regina Normal Exams.

The following results are announced of the normal school examinations held in April last.

First class—H. McM. Allan, M. I. Burgess, A. Grierson, C. B. McGregor, M. I. McBeath, J. I. Manthorne; E. E. O'Brien, J. A. Speers, F. E. Wilson.

Second class—L. D. Adams, E. A. Austin, J. S. Almond, E. M. Bacon, A. Boler, N. C. Bompas, E. Browning, O. Belisle, C. G. Bible, W. F. Bowlen, M. E. Chambers, B. I. Clark, M. Cummings, M. Cummings, W. A. Carefoot, J. H. Carefoot, A. Carmichael, G. S. Clancy, G. Clark, R. G. Goglon, I. Daly, M. M. Dodds, A. Dalziel, Geo. Duguid, A. C. Fisher, D. M. Fisher, M. B. Evans, E. J. Grant, L. E. Glover, A. Gordon, J. D. Gratton, A. A. Gray, B. A. Hardy, E. M. E. Huckell, H. R. Hurd, O. A. Hoover, L. E. M. Lobb, V. B. Lackey, J. H. Lumsden, W. W. King, E. Moorehead, G. L. Mowbray, C. G. McGlarty, H. S. McColl, I. Northwood, F. L. Neilly, M. P. Park, I. Pentland, A. Purdon, A. K. Robertson, H. Sibley, H. I. Smith, F. A. Smith, A. E. Sturgeon, L. R. Tompkins, H. E. Ward, I. Wilson, and S. Dever.

A Change at the Coast.

A change has taken place in the Government agricultural work in British Columbia. F. M. Logan who for two years has represented the Dominion live stock branch in the Pacific province has severed his Connection therewith and accepted the position of commissioner of Stock and Dairying under the local Government. The Live Stock Commissioner for Canada at least seems to be consistent in his determining that the provinces should not receive aid from

the Dominion for purely provincial purposes. The change in British Columbia is a further application of the principle laid down to the prairie provinces' stockmen that their subsidized cattle sales must not be confined to province stuff.

A Successful Plowing Match.

Birds' Hill Farmers' Institute held its annual plowing match on the 20th as per arrangements. The match was one of the most successful of its kind yet held, and the work done stands favorable comparison with that in other plowing competitions. In all there were sixteen contestants and the judging was done by Principal Black, M.A.C., and Jas. Yule, manager of the Van Horne farm at Selkirk. After the judging Principal Black addressed those assembled. He commended the enterprise of the institute in conducting these annual competitions and expressed the opinion that a good plowing match was more benefit to a community than an indifferent local fair.

The committee and the secretary, Mr. Gorham, worked hard to make the match a success, but were somewhat disappointed in not having outside competition. Such matches really should attract plowmen from a distance and it might be to the advantage of plow companies to assist in defraying the expense of good plowmen who would use their plows.

The number of boys under sixteen competing was also disappointing. One gang plower, A. Studholm, had the field to himself, but his work was exceptionally well executed, his lead team being well trained for their work and got the prize for the best plow team. The highest score of the day was made by J. A. Henderson in the championship class.

The awards were as follows:

Class 1, Boys 16 and under.—1st prize value \$8, A. Hamblin, Bird's Hill, 65 points; 2nd prize, value \$6, S. Chudleigh, Bird's Hill, 60 points.

Class 2, Boys 20 and under.—1st prize value \$12, F. Henderson, Springfield, 83½ points; second prize value \$10, B. George, Springfield, 79 points; 3rd prize, value \$8, C. Watson, Bird's Hill, 77½ points; 4th prize, value \$6, R. McBeth, Bird's Hill, 75 points.

Class 3.—Men 21 and over, 1st prize value \$12, J. E. Franks, Springfield, 76½ points; 2nd prize, value \$10, H. Bushel, Bird's Hill, 75 points; 3rd prize, value \$8, J. Mitchie, Dugald, 73 points; 4th prize, value \$6, W. Grant, Springfield, 70 points; B. Ibister, 68½ points.

Class 4, Gang and Sulky plows.—1st prize value \$12, A. Studholm, Springfield, 80 points.

Class 5, Championship, open to all.—1st prize, value \$12, J. A. Henderson, Springfield, 87 points; 2nd prize, value \$9, J. Hoddinott, Bird's Hill, 83 points; 3rd prize, value \$6, E. Garven, Bird's Hill, 79½ points.

Special prize, for the best plow team.—\$3, A. Studholm.

Special prize, for the best groomed team.—\$2, J. A. Henderson.

The ladies of the community as usual made the match a most most pleasant social function by their presence and the comforts they provided.

Secession Threatened in New Ontario.

In the geographies of our youth the map of Ontario never appeared entire. A double page illustration of that portion of the province lying south and east of Sault Ste. Marie was always shown drawn to a scale of about five hundred miles to the inch, while down in the lower right hand corner in a hollow obliquely left by the Atlantic ocean was the northwestern part of the province, in reality possessing a very much larger area than the other, but as shown on the map, an insignificant corner of the province drawn to a much smaller scale.



A HOG YARD ON THE FARM OF S. CLARK, ROUNTHWAITE, MAN.

In 1906 Mr. Clark sold \$11,000 worth of cattle.

The new geographies have altered all that on the maps, but no alterations have been made in the minds of the majority of Canadians. New Ontario, as that slighted district is now called, has earned the right to appear life size on any map representing the divisions of Canada. Her settlers—sturdy, energetic, persevering pioneer stock—have won it; her natural resources of forest lake and mine have won it; and now she is preparing to take her rightful place.

The present population of New Ontario is estimated to be something over 150,000. These men and women have discovered the capabilities of the country. Parts of it are rich in minerals, cobalt, silver, copper and even gold. There are miles of forest and every stream is full of logs floating down to the great lumber mills. The soil in many sections is a particularly productive black clay loam, and other areas are adapted to pasturing and stockraising.

But people are leaving New Ontario. Family after family has gone west. In spite of the natural advantages there is not the prosperity there should be; because of the lack of facilities for transportation. In plain English, there are no roads, and the Ontario Government does not seem to be in any haste to provide them. Villages and settlements are almost entirely cut off from one another, mere trails leading from town to town and these in bad weather are impassable.

The failure of the provincial Government to provide sufficient facilities for commerce in New Ontario has caused much discontent and the more radical among the settlers have decided that the only remedy for their ills is secession and the formation of a new province. Meetings have been held at Emo and Rainy River in which the wisest and most influential citizens took part and agreed to continue the agitation for reform or secession. The resolutions passed at the meeting in Emo are as follows:

Whereas, New Ontario, comprising the following districts: Nipissing, Algoma, Manitoulin, Thunder Bay, Rainy River, and that part of Ontario lying north and west of the French River, if that part of Keewatin east of the boundary of Manitoba be included, is sufficient in area to form a new Province, as it has an area of 632,815 square miles, one-sixth the area of Canada, and larger than the combined area of Alberta and Saskatchewan, and twelve times the combined area of Nova Scotia, New Brunswick and Prince Edward Island;

And Whereas, The population, estimated at 158,940, is sufficient, for when Manitoba was created its population was only 25,228, and British Columbia was only 36,247, and Alberta 79,199, and Saskatchewan 89,741;

And Whereas, New Ontario would be rich enough to be self-supporting and leave large margin for the development of the Province, as its revenue from timber, mineral and agricultural lands is at least \$1,250,000, and the Dominion subsidy would be \$1,000,000, making a total of \$2,250,000. The cost of legislation

has been estimated by a reliable authority at \$150,000;

And Whereas, The Legislature of Old Ontario has uniformly followed the system of collecting revenue out of the resources of the districts, and has never made any return for the same;

And Whereas, The Legislature of Old Ontario has shown that it is not in touch with the needs of the districts, as the mining, timber, and all legislation relating to the districts is so uniformly bad, that confidence can never be restored until the citizens of New Ontario can legislate for themselves;

And Whereas, The formation of the new Province would be a strong bond between Eastern and Western Canada, that there is no doubt that both Old Ontario and Manitoba will be ready and anxious to facilitate in every way the formation of the new Province;

Therefore, It is resolved that a committee be appointed to communicate with the various cities, towns and municipalities throughout the districts of Ontario lying north and west of the French River and endeavor to ascertain their opinion concerning the advisability of seceding from Old Ontario and of forming a new Province, and in the event of their being in favor of the same, to endeavor to have meetings called at a convenient city in each district, with the object of appointing a board or committee to arrange to have a plebiscite taken of the above-named districts, to ascertain the feelings of the people in the matter.

Making a Farmer of the Boy.

That the agricultural college in our western country has a great work ahead of it no one will deny. It must not only be the leader in higher education, but from it should emanate the spirit of enthusiasm which will tend to inspire the rural youth with a desire for study, investigation and education. Not one per cent. of our country children will ever go to the agricultural college—that is under present conditions, and the other ninety-nine per cent. must be reached by other methods. In this work the United States is taking a foremost part. They have what is termed "Agricultural Extension work," which broadly defined means bringing the college to the farm and helping to build up, to strengthen and brighten the work of the boys and girls on the farm homes of America. In referring to this work F. H. Rankin, who has charge of juvenile institute work in Illinois Agricultural University, says:

"The work of this department has in view the bringing of the educational forces of the college in touch with the largest number of young persons possible living on Illinois farms, and inducing as many of them as we can to avail themselves of the advantages of higher education in agricultural and other lines. In the broad sense of the term, this work is a go-between for the department work of the colleges of agriculture and the young people of the state, in the way of encouraging the boys and girls to avail themselves of the training which the state courses afford. We feel that this is rendered necessary from the fact that the young people of the farm have no very great encouragement toward higher education.

We have adopted the following leading features:

First.—Personal correspondence.

Second.—Attending farmer's institutes and per-

sonally visiting the homes of some of these young people.

Third.—Young people's experimental clubs.

Fourth.—Excursion parties to visit the university.

We have a growing list of the names of several thousand boys and girls. These names have been received largely through the co-operation of friends of the college. This furnishes a good working list upon which to base our efforts as indicated above: First, by personal correspondence, because it is an event in a boy's or girl's life to get a personal letter from someone who desires to help them become better and more useful citizens. We each recall how a few words of encouragement and sympathy helped us in early days, and we endeavor to put this spirit into our letters. Second, we enlist the interest and co-operation of some of the leading men in a county, preferably the superintendents of schools, and encourage him to organize these young people into so-called "young people's experimental clubs." A number of clubs have been organized in this way ranging in membership from thirty to three hundred. We supply these experimental club workers with helpful literature. This year much interest was taken in the cultivation of Indian corn. Many institutes have offered prizes for the best corn raised by young people under eighteen years of age. Co-operating with the work of the institutes, we sent these young people leaflets containing information as to the cultivation of corn, and furnished a record blank upon which they reported to us. In addition some simple experiments were outlined, such as the effect of root pruning, counting the number of barren stalks, time of pollenization, etc.

Early in the summer we sent out a suggestive form for a weather chart and information as to how to make a simple rain-gauge. The circular also contained a number of suggestive methods of observation work to be taken up during vacation. Its aim was to make the boys and girls observe the every-day things; to find untold pleasure in undiscovered beauties of nature, as well as to give closer attention to farming problems. When we sent out a circular asking for data as regards farm machinery which had been left exposed to the rain and sun, several reports came in filled out and with this kind of a foot-note: "When your blank came we had a plow or a hay-rake out in the field, but it is now sheltered." These boys had evidently been awakened to new facts.

We are just now sending out a leaflet intended for the girls as well as the boys, making a special study of what pure air and proper ventilation mean to the home and dwelling-rooms. Our idea is to make it a personal matter in this work with the boys and girls and to get into closer touch with as many as we can and study their needs and inclinations; in the main, we are trying to use rifle instead of shot-gun methods, and get directly after the boys and girls, and follow them up both with literature and personal letters.

We keep a card index system, entering the name of each young person; his post office and county; whatever he is specially interested in; number of brothers and sisters he has; their age; occupation of parents; size of farm they live upon; record of literature sent; and letters sent and received.

We attend a number of institutes in the state and if going to a meeting for instance in Adams county, we will, a couple of weeks before the meeting, send letters to all the young people in that county whose names we have on our list, telling them that a representative of the college will be present at the meeting; then draw their attention in a personal manner to that special feature of the program in which we know from the



ON PUBLIC GRAZING GROUND NEAR EDMONTON, ALTA.

cards they are especially interested. Then upon going to the meeting with these cards in our pocket, we can study out and know the names and something in detail of the particular young people we are going to meet. Such is in brief, an outline of the nature of the work we are doing in the way of agricultural college extension.

Briefly, the results are as follows:

First.—An interest in agriculture is awakened early in life, as most of these people are but twelve to fourteen years of age.

Second.—An increased number of students in the college of agriculture, seventy-five more having registered this year than did a year ago.

Third.—Better preparation for these students.

Fourth.—A more general appreciation among young people on the farm of the advantages of higher education in all lines, resulting in an increased attendance in all courses.

Fifth.—A wider and more intelligent conception of what the college of agriculture is doing and of its needs.

Much of this work is of such a nature that its results cannot be tabulated or expressed in words and figures. It has already given fruit along the lines above mentioned, and the belief is cherished that what has been accomplished is but a fraction of what is bound to follow as the cumulative effect of this line of work. We believe there is certainly a field for this kind of work, and the good results of this direct personal effort are bound to be felt in quickening the aspirations of boys and girls. We are endeavoring to carry the thought of culture and higher education into the farm homes and to give these young people a glimpse of all the great things that agricultural prosperity means, and cause them to seek out and inquire more earnestly for those things which will contribute most effectually and most directly to agricultural prosperity. We endeavor to bring no spirit of bigotry or partizanship into this work. We believe that every young person should follow the lead of his inclinations and adaptability. Every farm boy is no more fitted to become a farm boy than every boy who is born near a corner drug store is fitted to become a druggist; but we believe in encouraging young men who expect to farm to be good farmers and to fit themselves for their business, just as you would encourage their brothers who take up professional life. Thus shall be developed a class of men true and tolerant and useful in the home and potential in public affairs."

This may seem, and is doubtless, a tremendous effort to reach the people of the state of Illinois. But results count in the end. Personal letters, direct touch, inspire confidence, beget enthusiasm and do work for the nation and the country. Results cannot always be traced—discouraging features must be met, but after all somewhere, somehow, the work and effort will be woven in the warp and woof of the nation's life. Our own Western Agricultural College is beginning work of a similar nature. It must be broad and thorough. It will require money and men and work, but next to the development of our men must come the development of agriculture, for only in that way can we hope to become nationally great.

The Culture of Agriculture.

The following sentiments by a correspondent of *Hoard's Dairyman*, harmonize so well with the preaching of advanced educationists in Canada that we give them prominence on this page.

"Agriculture should be taught in the schools, not only because it is practical a subject, but because it is a cultural subject as well. When properly classified, the foundation factors in agriculture are as strongly educational as those of reading, arithmetic and grammar. There is just as much knowledge, just as much thought, just as much inspiration, from a study of soils, of plants and of animals as there is in a study of foreign rivers, countries and foreign activities. What makes education so distasteful to so many boys and girls is the fact that it is altogether out of the limit of their experience and knowledge. I have no objection to my boy and girl knowing something of King Charles and King Henry, but I want them to know something about 'King Corn' and 'King Cotton' as well. I am willing they should know something of laws of the ancient dead, but I am also determined that they should know something of the laws that underlie plant and animal growth. Personally, I believe that clover and alfalfa roots are just as divine as Greek and Latin roots, and that the old hen is more worthy of study than some of the wicked men of destroyed nations."

Sound sense, and right to the point. On top of that, read these abridged lines from the concluding paragraphs:

"Agriculture in the school will fit the boys and girls on the farm not only to an understanding of the dignity of their own environment, but it will put into their hands the trained tools for unqualified success. And then with the same idea of broadening, let agriculture be taught to all boys and girls, without regard to vocation in life—the lawyer's, the doctor's, the minister's and the merchant's. The city man and the city woman are interested in the soil, for they have the lawn and often the garden. They are interested in grass, for it clothes their lawn; they are interested in the fruits of the field, for from them they are fed; they are interested in the animals on the farm, for from them they receive much of their food and much of their pleasure.

A Crop Estimate.

Frank Fowler, secretary of the Grain Dealers' Association, has written the Trade and Commerce Department giving a statement of the acreage under crop in Manitoba, Saskatchewan and Alberta for the present season, compared with 1906. It is as follows:

	Acreage	
	1906.	1907.
Wheat	5,013,444	5,013,544
Oats	2,118,777	2,373,030
Barley	603,485	663,833
Flax	93,795	105,050

This gives the same area in wheat, about twelve per cent. increase in oats, nineteen per cent. in barley, and twelve per cent. in flax.

Of the 1906 crop there were 55,230,000 bushels of wheat inspected to date, 11,500,000 bushels in store at country points, 920,000 in transit, 1,142,000 shipped by the G. N. R., and 300,000 marketed at Winnipeg. Then there are in farmers' hands to market 5,300,000, for country mills 9,000,000, and for seed 9,000,000, making a grand total of 92,352,000 bushels. There are oats in farmers' hands to market amounting to 600,000 bushels; barley to market 160,000.

The reports show the condition of the growing crop to be quite favorable with good growth, although the wheat is about two weeks late.

Things to Remember.

Shorthorn Sale, A. & G. Mutch, Regina	
Exhibition Grounds.....	June 26
Blyth Plowing Match.....	July 26
Calgary Exhibition.....	July 9, 10, 11 and 12
Portage la Prairie Exhibition..	July 9, 10, and 11
Hackney Sale, Rawlinson Bros., Calgary	July 24
Winnipeg Exhibition.....	July 13 to 20
Brandon Fair.....	July 22 to 26
Regina Exhibition	July 30, August 2
Killarney	July 30, August 2

MANITOBA SUMMER AND FALL SHOWS.

Glenboro	July 1
Springfield	July 3 and 4
Wawanesa	July 3 and 4
Morris	July 3 and 4
Neepawa	July 3 and 4
Carman	July 4 and 5
Miami	July 6
Emerson	July 8 and 9
Birtle	July 8 and 9
Elkhorn	July 9
Minnedosa	July 9, 10 and 11
St. Pierre	July 10
Cypress River.....	July 11
Virren	July 11 and 12
Souris	July 29 and 30
Hartney	July 30 and 31
Oak Lake.....	August 1
Swan Lake.....	August 1
Dauphin	Aug. 6
Gladstone.....	August 6
Strathclair	August 6
Melita	August 6
Oak River	August 7
Deloraine	August 7
Boissevain	Aug. 8
Shoal Lake	August 8
Swan River	August 8
Manitou	August 8 and 9
Hamiota	August 9
Holland	August 9

ALBERTA FAIRS.

Edmonton.....	July 1-2-3-4
Innisfail	July 4 and 5
Calgary	July 9-10-11-12
Okotoks	July 16 and 17
High River	July 18 and 19
Red Deer	July 22 and 23
Strathcona	July 24
Fort Saskatchewan.....	July 26
Macleod	July 31, Aug. 1-2
Lethbridge.....	Aug. 6, 7 and 8
Leduc	Aug. 8 and 9

SASKATCHEWAN FAIRS.

Battleford.....	July 24, 25 and 26
Hanley	July 30
Prince Albert.....	August 1 and 2
Saskatoon.....	August 6, 7 and 8
Rosthern	August 8 and 9
Indian Head	August 13 and 14
Ft. Qu'Appelle.....	July 31
Sintaluta	August 2
Moosomin.....	August 6 and 7
Grenfell	August 8
Wapella	August 9
Fairmeade	August 13
Broadview	August 14
Wolseley.....	August 15
Yorkton	July 9 and 10
Saltcoats	July 23
Churchbridge	July 25
Dubuc	July 26
Strassburg	July 30
Abernethy	August 2
Carlyle.....	August 6
Arcola	August 8
Gainsboro	August 9
Regina	July 30, 31 and August 1 and 2

MARKETS

All eyes are upon the country now and will remain there pretty well on into the fall. The prospects for a poor crop were responsible for the upward movement of wheat in May and the public are interested in watching how far they were justified in predicting a short yield. For the present there are large supplies on the world's markets. The visible supply on June 1st was 190,000,000 bushels, compared with 151,119,000 on June 1st, 1906, and an increase of 54,540,000 over June 1st, 1905. This large supply tends to keep prices level, but on the other hand the prospects for a short crop this year are not good and the 1906 crop was exceptionally large. Good growing weather for the past few weeks has made buyers hesitate, but we are still a long way from harvest.

There is some surprise at the supplies that have come from the Argentine since that country began to move its crop in January. It is thought, however, that the prices have induced more liberal marketing than usual and that supplies will be pretty well cleaned out.

Harvest and threshing have begun in Texas and will extend northward each week. The Texas crop is light and further reports from Kansas indicate that owing to the green bug and the adverse weather the total output of that state will not be more than half an average crop.

The nervous condition reported in our last week's summary somewhat abated later and a slight recovery was made, the greatest advance being on October, which gained 1½ cents.

At last week end Thompson, Sons & Co. reported conditions in the Winnipeg market as follows:

"Cash demand is poor, for while prices are trailing around an export basis the demand is not such as to give any spring to values, and although stocks at Fort William are large and money to carry wheat is tight, holders are unwilling to make concessions in price for the sake of working. They are encouraged in this by the large shortage in the prospect of this year's crop in the United States and Europe, and also by the doubtful prospect for our own spring wheat crop owing to lack of sufficient rainfall. Over a large part of the country complaint is now common that crops are needing moisture badly. Elsewhere thunder showers have been giving temporary relief, but unless we very soon have a general and liberal increase in rainfall the spring wheat crop will prove very short. Prices are 1 Hard 88½c, 1 Nor. 87½c, 2 Nor. 84½c, 3 Nor. 82c, spot or en route, and futures are June 87½c, July 88½c, August 80½c, September 90½c and October 91½c. All prices are based on in store Fort William and Port Arthur."

PRODUCE (WHOLESALE PRICES).

Oats	41	41
Barley.....	54	54
Flax	32	32
Bran, net per ton.....	17 00	
Shorts	18 00	@ 19 00
Chopped feeds, barley and oats.....	24 00	
Barley.....	22 00	
Oats	27 00	
HAY, per ton (case on track, Winnipeg)	17 00	@ 18 00
Loose loads	18 00	@ 19 00
POTATOES, in cars or small lots, less freight, track Winnipeg	70	@ 85
BUTTER—		
Fancy, fresh made bricks	24	@ 25
Dairy, extra fancy.....	22	
Prints, fancy in small lots.....	20	@ 21
Dairy, in tubs	18	@ 19
CHEESE—		
Manitoba new cheese at W'peg	12	@ 12½
EGGS—		
Manitoba fresh gathered, f.o.b. Winnipeg	17	@ 17
POULTRY, (Cold storage stock)—		
Spring chickens	17	@ 18
Spring ducks	16	
Fowl	13	
Young turkeys.....	19	

LIVE STOCK.

The expected rise in first class butcher's stock is here. Good cattle are wanted, but they will be late in coming forward. Hogs remain steady.

Prices quoted are: Best steers \$5.30 to \$5.65; ordinary to medium, \$4.60 to \$5.00; heifers, \$4.50 to \$5.00; cows, \$3.50 to \$3.75; bulls, \$2.50 to \$2.75. Sheep, \$7.50 to \$7.75. Lambs, \$8.00 to \$8.50. Hogs, not too heavy and bacon types, \$7.75; heavy and old, \$7.25; rough, \$6.75.

TORONTO.

Export cattle, \$6.00 to \$6.25; butchers, well finished, stock \$5.75; choice, \$5.25 to \$5.40; medium \$4.75 to \$5.00. Spring lambs, \$3 to \$6 each. Hogs, \$6.90.

CHICAGO.

Cattle.—Beeves, \$4.65 to \$7.00; cows, \$1.75 to \$4.75; heifers, \$2.75 to \$5.50; good to prime steers, \$5.75 to \$7.00; poor to medium, \$4.70 to \$5.70; stockers and feeders, \$2.90 to \$5.15. Hogs.—Light, \$6.10 to \$6.32½; heavy, \$5.90 to \$6.27½; good to choice heavy, \$6.15 to \$6.27½; bulk of sales, \$6.20 to \$6.25.

HOME JOURNAL

Life, Literature and Education

IN THE WORLD OF LITERATURE AND ART.

George H. Chandler, M. A., professor of mathematics at McGill University, Montreal, is dead.

* * *

Dickens was the despair of the printers. He wrote a very small hand, often with blue ink on blue paper and with many erasures and corrections.

* * *

A portrait of Julia Peel by Lawrence, the great portrait painter, was sold at auction in London for \$42,000. Charles Westheimer was the purchaser.

* * *

"Musical Canada," a new Canadian magazine, has made its first appearance. It is a monthly and is filled with matter interesting to all musicians and lovers of music.

* * *

Charles Mair, the Western Canadian poet, has undertaken to compile a history of Western Canada. He will live at Edmonton while engaged on this work which his experience and literary gifts should make a valuable one.

* * *

June 24th was the three hundred and tenth anniversary of the landing of John and Sebastian Cabot on the shores of Newfoundland, the first white men to reveal the possibilities of settlement in the northern part of the continent.

* * *

The loss of another art treasure has aroused considerable indignation and there is an intimation that the missing property has passed into the hands of an American. The Church of San Pietro, Perugia, Italy, had in its possession twenty-two large illuminated volumes dating from the fifteenth and sixteenth centuries. They were the work of the best masters of the art, and the most beautiful of them was the product of one Glacomo Caporali. Two years ago a local physician who was attending the Abbot of San Pietro asked permission to copy the Caporali volume for a rich American. He was allowed to take the volume home, but never returned it. The Abbot is now dead and the physician lies ill at Florence.

* * *

An Irish antiquary offered for sale at Sotheby's an English coin so very rare, it is said, that one had never been presented at an auction before, not even in the famous Murdoch and Montagu sales. The coin was identified as a gold "Crown of the Rose," which Henry VIII commanded Wolsey to have struck in 1526. It was ordered that the coin should weigh 51 grains and be worth four shillings and sixpence, which was the value of the French crown of "The Sun King." Henry VIII ordered the coin because English money, on account of its superior value, had been finding its way to the continent, and it was necessary, he thought, to have a coin small enough in value to stay at home. Nobody at Sotheby's had ever seen a "Rose Crown," and every numismatist was present at the sale and wished to own the one that was offered. The result was eager bidding, until the coin was knocked down for £220.

THE EMOTIONS IN TABLET FORM.

The fairy tale of the girls from the lips of one of whom dropped pearls and diamonds and from the other fell toads and snakes can no longer, if Professor Gates is correct, be regarded as a mere allegory, but must be looked upon as a fanciful way of stating a very real physical fact. Professor Elmer Gates is a psychologist. He has a laboratory in Washington where he spends long days and nights in experiment. He has proven, to his own satisfaction at least, in a course of experiments just completed, that love

and anger and jealousy can be reduced to solids and their names to chemical formulæ. A chemical agent has been found that will react upon these solids as upon any other substance.

The physical processes undergone in the human system as a result of emotion of any kind are to be obtained in the perspiration and the breath. The professor condensed the volatile constituents of the breath of the subjects of his experiments, and obtained some marvellous results. The breath of an angry man when treated by the reagent precipitated a brown sediment; a grief-stricken subject's breath left a grey deposit, while remorse left behind a trail of pink. These are all the color results he gives, but one can imagine some of the others. For instance, the breath of envy would be green; treat the sigh of the homesick and you would see definite traces of blue; while in the breathings of the coward would be plainly marked the streak of yellow.

But the end is not yet. The precipitation from the evil passions is found to be invariably of a poisonous nature. The brown sediment of anger administered in small doses to animals and men produced in every case nervousness and irritability. Thought conditioned by jealousy and reduced to a powder is of a deadly nature. Some was injected into the veins of a guinea pig and it died. This was rather hard upon the pig, to whose constitution jealousy in any form was a stranger. A human system might not have received such a shock. Of all the passions hate produced the greatest results in this series of tests. It was accompanied by the greatest expenditure of energy and when treated precipitated several chemical products. Enough of these would be precipitated in one hour of intense hate to cause the death of nearly a hundred persons.

It is a matter for extreme thankfulness that the chemical substance necessary to react upon these products of the emotions is not present in the air, or the population would become strikingly reduced. What would become of the baseball umpire who gave an adverse decision for the home team at a league match? How terrible would be the fate of the lady who wore the prettiest gown and most becoming hat to an afternoon tea! In the legislature the opposition, if weak, would be wiped out completely; while if the two parties approached an equality in strength the tragedy of the Kilkenny cats would be re-enacted.

If the professor has done any experimenting with the nobler emotions, he has not made the results public. It would be interesting to know what is the chief characteristic of the deposit left by treating the breath of kindness, courage, joy, generosity or love; and more interesting still to know the effect of inoculating men with these various productions. There would seem to be limitless possibilities in it for the uplift of the human race.

THE WEATHER.

It is safe to affirm that more has been said about the weather during the first six months of 1907 than about any other ten subjects put together. It ought to be forgiven much if only for being a universal provider of conversation. It has provided a topic for breakfast with one's family, for lunch with a business acquaintance, for dinner with a guest, for interesting the chaperon or for putting the bashful youth at his ease. We do not appear to be sufficiently grateful. Instead the American newcomer uses strong language and harks back to the weather they have "down South" or in old Missouri or any place in the whole Republic he happens to have been in; the stranger from over-seas forgets all the weather defects in the Homeland and

condemns this "rotten climate, don't you know"; while even the natives complain bitterly when there are no strangers round.

After all what is the use of "grouching"? There has been a seed-time (if a few weeks late) and there will be a harvest just as surely. And these prairie provinces are better off in the matter of weather than almost any other spot on the globe. In many of the States early warm days brought up the garden seeds and opened the fruit buds; then frost came and nipped them all. We weren't troubled that way. We have had snow and rain and cold; other countries have suffered with blizzards and floods and tornadoes which destroyed property and took away human life. This country may have its discomforts, but it is consoling to remember that we are at least as comfortable as we would be any other place, and a great deal safer. Cheer up! Cheer up!

CRUELTY TO WORDS.

There are societies for everything in this enlightened age—some useful, more ornamental, but a society for the prevention of cruelty to words would be both useful and ornamental and more to be desired than organizations for sending moral pocket-handkerchiefs to the Hottentots, a la Mrs. Jellyby, or suppressing peashooters. English words of the best families suffer the tortures of the Inquisition and not a hand is lifted or a voice raised in their behalf.

Such freakish twistings into phrases do the poor words undergo at the hands, or rather the tongues of the oppressors, that they become unrecognizable by humans, and must scarcely know themselves, so racked are they. For example "in-as-much-as" for "because," "nevertheless" for plain little "yet," and worst of all "every-once-now-and-then" instead of "occasionally" or "frequently." "Every-once-now-and-then." Every-once-now-and-then. The oftener you say it the more dim and whirling does the meaning become. The first time you said it you thought you knew what it meant, then you supposed it meant something but did not know what; and now you are sure it does not mean anything. You're right, too.

A good word is "now"—sober, law-abiding, meaning what it says, and trying to attend strictly to its own business. And an equally worthy character in the world of words is "then." But some interfering human with socialistic tendencies seizes these two from their peculiar places, and combines them thus, losing both and producing nothing—"Now then, you young rascal, keep off the grass!" Why, "now"? Why "then"? In the knowledge of words and of the treatment that should be accorded them that man is as the beasts that perish.

This is only the beginning. That same man, or another one, says to his wife, "Now and then a woman sees a joke." Perhaps so, but is it the same joke now as it was then, or is it the joke of then that she sees now? And why not say "then and now" and so have words spoken decently and in order. These things are distinctly confusing to the amateur philologist.

But the end is not yet. The slaughter of the innocents continues unabated. Some stickler for the exact truth, who imagines everyone places the same value upon his utterances as the price mark he puts on them, says to himself, "I must be careful—'Now and then' is a good phrase, mellow and smooth, but a little indefinite, a little vague. I will say 'Once now and then,' choosing thus the safe side and running no risk of being considered extravagant."

So four perfectly harmless Saxon words are ruined, and, unsatisfied still, the human barbarian adds another victim to the pile and then rubs his hands gloatingly over the remains and remarks complacently, "Every once now and then I write essays for the best English journals." And finally, when the five sober-minded English words have gone into the fire and come out warped and meaningless, we all are filled with amazement and say with the children of Israel: "We have put in our gold, and behold there came out this calf!"

TWENTY YEARS AGO.

By L. S. GRIGG.

'Tis twenty years to-night, Jean,
 Since o'er the waters blue,
 You left your home, and friends, Jean,
 To meet your lover true,
 Your eyes were like the stars, Jean,
 Which light the sky by night;
 Your hair was like a raven, Jean,
 And now it's almost white.

(Chorus)

But put your hand in mine, Jean,
 And tell me soft and low,
 You love me just as well, Jean,
 As twenty years ago.

We've had our troubles too, Jean,
 Some dark and dreary days,
 And we have lived to know, Jean,
 Our ways, are not His ways.
 And though He took our bairn, Jean,
 We still can thankful be.
 For we've one another still, Jean,
 And you're all the world to me.

(Chorus)

THE STORY OF THE GRANTS.

DICKEN'S "CHEERYBLE" BROTHERS OF MANCHESTER.

"He was a sturdy old fellow in a broad skirted blue coat, made pretty large to fit easily and with no particular waist; his bulky legs clothed in drab breeches and high gaiters, and his head protected by a low-crowned, broad-brimmed white hat, such as a wealthy grazier might wear. He wore his coat buttoned; and his dimpled double chin rested in the folds of a white neckerchief—not one of your stiff-starched apoplectic cravats, but a good, easy, old-fashioned white neck-cloth that a man might go to bed in and be none the worse for." That was the figure of the elder Cheeryble, as seen by young Nicholas Nickleby, and it is an accurate portrait of William Grant. He and his brother Daniel were the prototypes of the Cheeryble pair.

Did Dickens ever meet the brothers Grant? The Rev. W. Hume Elliot, in his "Story of the 'Cheeryble' Grants," comes to the conclusion that he did. In the original preface to "Nicholas Nickleby" Dickens stated definitely that "the brothers Cheeryble live," though in a later preface he wrote: "Suffice it to say that I believe the application for loans, gifts and offices of profit that I have been requested to forward to the originals of the Brothers Cheeryble (with whom I never exchanged any communication in my life), would have exhausted the combined patronage of all the Lord Chancellors since the accession of the House of Brunswick, and would have broken the rest of the Bank of England." The statement, "with whom I never exchanged any communication in my life" may indeed very well refer—and taking its context pretty clearly does refer—to epistolary communication. There seems sufficiently conclusive evidence that Dickens did meet the Grants in 1838-1839; he may have taken a whim to deceive his readers; on the other hand the simple explanation suggested seems sufficient.

The Grants hailed from the beautiful valley of Strathspey. Misfortune overtook the good farmer-father and his wife, the farm had to be given up, and they decided to migrate, with their seven children, to Lancashire, where the cotton industry was booming. It was a perilous undertaking. Out of the wreck of his fortunes William Grant the elder had managed to save a horse and cart; it was the only possible means of conveyance for the household, and accordingly, with a good stock of provisions, they set out. Within sight of Ramsbottom, where the family fortunes were subsequently to be made, the food gave out, and the shadows of starvation loomed black ahead. "At this juncture William Grant and his faithful wife, with their children, gathered round them on the bare hill-top, lifted up their voices in prayer to God, to relieve them in their sore trouble, and send food to feed the hungry." The next morning two gentlemen shooting on the hill took compassion on the piteous little group and left a couple of sovereigns in the father's hand. From that time forward success came; the two eldest boys obtained employment in a mill and the father turned pedlar, buying "fents and

vest pieces," which he sold from door to door. Then a shop in Bury was opened by the enterprising family; that, too, succeeded, by the aid of a "New Invented Patent Barrel Organ, with Bell, Drum and Triangle, by John Longman, London." This singular instrument was set up at their front window, and in the evening for many weeks people resorted to hear a variety of tunes. Soon afterwards the brothers started business in Manchester, as calico printers, under the title, destined to wide future distinction, of William Grant and Brothers.

Factory was added to factory and wealth to wealth, but the brothers remained the same simple souls, though they were now able to dispense lavish hospitality and to indulge their passion for generosity. Daniel was always something of a humorist; he knew his limitations, and did not pretend to knowledge which he did not possess. On one occasion a distinguished writer on Egyptian antiquities was his guest. Daniel knew nothing of Egyptian antiquities, and he was bored. "So, with a fine impulsive rush, like a skater clearing a piece of dangerous ice, or a batsman springing out of his ground to hit an unmanageable ball, he responded thus—"Yes! yes! Egypt! Pharaoh! Very old country! Mummies!" with a sharp and heavy emphasis on the embalmed ones. Daniel's butler—the "apoplectic butler" of Dickens—"beset him his position." Dickens gives as a feat of his dexterity the rapidity with which he would produce a magnum of the double diamond to drink the health of Mr. Linkinwater." The actual order as given by Daniel was, "Alfred! Ruby! Lightning!" And the breathless butler produced the precious vintage with singular celerity.

The generosity of the brothers was without stint; Daniel literally flung money away in handfuls. No one whose plea was genuine ever appealed to him in vain. There is a pleasant story of his appearing on the sands at Blackpool during a bad season, when the fish-wives were standing dolefully about waiting for customers who did not come. Daniel bought up everything on the spot. "Where shall we take 'em, sir?" they cried. "No! no! Pay first pay first!" he said. It appeared that they had no change, so handed a sovereign to each woman. Then the cry again arose, "Where shall we take 'em, sir?" "Where you like! Where you like! Don't want 'em. Don't want 'em. Sell 'em or give 'em away. Hungry ones! Mustn't clem. No! no! Better luck! Good times coming! Good times. Won't clem!" It may be said that such random generosity is easy, but it is only an indication of Daniel Grant's deeper benefactions.

It is strange in the history of a great commercial concern that the Grants had the strongest objection to "putting their hands" to any documents. They would sign cheques readily enough—they knew exactly what they meant. On one occasion a member of a shipping firm in Liverpool called upon Daniel in Manchester and told him that they were temporarily pressed for funds. "How much do you need?" asked Daniel. "From £6,000 to £8,000." Daniel forthwith signed a cheque for £10,000. Profusely thanking him, the gentleman proceeded to put into his hands legal securities for the amount. "No! no!" said Daniel. "Take them with you! Take them with you! A thing of honor! A thing of honor! Pay when you can! Pay when you can!" Remonstrance was in vain. In the brothers William and Daniel Grant, Dickens found the very material for his genius. Nor does he seem to have in any way exaggerated the beauty and humanity of the characters of these Cheeryble Brothers.—*T. P.'s Weekly* (London, Eng.)

In the cook's absence the young mistress of the house undertook, with the help of a green waitress, to get the Sunday luncheon. The flurried maid, who had been struggling in the kitchen with a coffee machine that refused to work, confessed that she had forgotten to wash the lettuce. "Well, never mind, Eliza. Go on with the coffee, and I'll do it," said the considerate mistress. "Where do you keep the soap?"

DRUMMOND'S UNPUBLISHED POEM.

Some years ago the late Dr. Drummond suffered the death of an infant son. The Poet of the Habitant wrote the following verses shortly afterwards, but they were not published until subsequent to his own death:

Las' night w'en I'm sleeping I dream a dream,
 An' a wonderful wan it seem—
 For I'm off on de road I was never see
 Too long an' hard for a man lak me,
 So ole he can only wait de call
 As sooner or later come to all.

De night is dark an' de portage dere
 Is narrow wit' log lyin' ev'ry w're,
 Black bush aroun' on de right an' left.
 A step from de road, an' you los yours
 ei;
 De moon an' de star above is gone,
 Yet somet'ing tell me I must go on.

An' off in front of me as I go,
 Light as a dreef of de fallin' snow,
 Who is dat little boy dancin' dere?
 Can see hees white dress an' curly hair,
 Can almos' touch heem so near to me,
 In an' out dere among the tree—

An' den I'm hearin' a voice is say,
 "Come along, tader, don't min' de way,
 De boss on de camp is sen' for you,
 So you' leetle boy its goin' to guide you
 troo;
 Its easy for me, for de road I know,
 'Cos I travel it many a year ago."

An' O! Mon Dieu! w'en he turn hee's
 head
 I'm seein' de face of ma boy is dead—
 Dead wi' de young blood in hees vein,
 An' dere before me he come again,
 Wit de curly hair and dark blue eye,
 So lak de blue on de summer sky—

An' now no more for de road I care.
 An slippery log lyin' ev'ryw're,
 De swamp in de valley, de mountain,
 too,
 But climb it jus' as I used to do.
 Don't stop on de road, for I need no
 res'
 So long as it's dere, de leetle white
 dress—

An' I follow it on, an' wance in a w'ile
 He turn again wit' de baby smile,
 An' say, "Dear tadder, I'm here, you
 see,
 We're both togeder, jus' you an' me.
 Very dark to you, but to me it's light,
 De road we travel so far to-night—

"De boss on de camp w're I always stay
 Since ever de tam I was go away,
 He welcome de poores' man dat call,
 But love de chil'ren de bes' of all—
 So dat's de reason I spik for you,
 An' come to-night for to bring you troo."

Lak de young Jesu w'en He's here
 below,
 De face of my leetle son look jus' so—
 Den off beyon' on de wood I see
 De white dress fadin' among de tree—

Was it a dream I dream las' night
 Is goin' away on de mornin' light?

Scottish folk are proverbially canny and prudent in money matters, and the following shows that the younger generation is no exception to the rule.

A teacher in a Lowland school was taking mental arithmetic with a class of boys. She asked one urchin:

"How much would your mother give you to buy four pounds of tea at one and six a pound?"

"We ne'er get sae much at aince as that, mem."

"Never mind that. Four pounds at one and six?"

"But we canna afford the one and six mem. We always hae the one and twa."

"Answer the question. What would she give you to pay for four pounds of tea at—"

"Naethin, mem."

"What do you mean by 'nothing'?"

"She'd na' gie me ony bawbees. She'd tell me tae ask the man tae pit it doon."

"Oh, dear! Oh, dear! But supposing she did?"

With a pitying smile came the reply: "A' can see ye've ne'er met me mither, mem."

ABOUT THE HOUSE.

Potato Puffs.—Old potatoes at this time of the year are apt to be unpalatable, if just boiled. A good way of serving them is to mash them while hot, and to each pint of mashed potato add a teaspoon of salt, a quarter teaspoon of pepper and hot milk enough to moisten well. When partly cool add the yolks of two eggs, well beaten, and lastly the whites which have been beaten stiff. Bake ten minutes in an oven hot enough to brown well.

Rhubarb Custard Pie.—Stew a pint of chopped rhubarb in a very little water and press through a colander. Add a cup of sugar mixed with a tablespoon of flour and two beaten eggs. Line a plate with pastry, brush over with the white of an egg, pour in the rhubarb and bake without a top crust. Cover with whipped cream before serving or with a meringue of beaten white of egg and sugar.

Steamed Rhubarb Pudding.—Six stalks of rhubarb, one cup suet, one-quarter teaspoon salt, one cup sugar, two cups flour. Chop the suet very fine, mix with it the salt and flour, add enough cold water to make a dough. Roll into a sheet, and with part of it cover the bottom of a baking dish. Fill with the rhubarb and add the sugar. Cover the top with the remainder of the dough, cutting a hole in the center to let the steam escape. Place in a steamer and cook for two hours. Serve with butter and sugar or pudding sauce.

New Orleans Omelet.—Three good sized potatoes are peeled, sliced, and fried in bacon fat or lard. When nearly done stir in half a small onion finely minced and cook until tender. Beat three eggs well, season with salt and pepper and pour evenly over the potatoes. When the under side is cooked, put in plate over the pan, turning the omelet out bottom upward and slipping it back into the pan for the other side to brown.

German Pudding.—Mix one pint of fresh raspberries, one pint of fresh red currants, one pint of water, and sugar to taste. If you want the pudding sweet add three teaspoons of granulated sugar. If a tart pudding is desired, two teaspoons will be sufficient. Add to this mixture six inches of cinnamon stick broken into bits. Boil for half an hour in a porcelain-lined stew kettle; then press the juice through a sieve into another porcelain receptacle, and add a teaspoon of blanched almonds and citron in equal quantities chopped very fine. Cook gently for twenty minutes, then thicken with corn starch, allowing five tablespoons of corn starch to a quart of the liquid. Pour into one large mould or individual moulds, and serve cold with whipped cream or a plain custard sauce. The Germans make this pudding rather tart, and sweeten to taste when serving.

THINGS WORTH REMEMBERING.

Alcohol and salt will clean a coat collar that has become soiled.

The juice of half a lemon in a glass of water taken without sugar every morning before breakfast will ward off malaria.

A German physician says that a cure for seasickness is to bind lightly round the forehead handkerchiefs wrung out of hot water while the patient lies flat upon his back.

No woman, it is said should use a sewing machine without sitting upon a chair that is from four to eight inches higher than the one she ordinarily uses.

When baking a fruit or wedding cake it is a good plan to place a vessel of hot water in the oven to prevent the top of the cake from scorching. The dish should be lined with several layers of buttered paper and a layer of sawdust or bran placed in a shallow pan under the cake tin will keep the bottom from burning.

Willie—I know what sis is going to give you for a birthday gift, Mr. Noodle! A umbrella.

Mr. Noodle—And why do you think so, Willie?

Willie—'Cause I've heard her say often you ain't got sense enough to come in out of the rain. —*Brooklyn Eagle*.

ONE THING I KNOW.

He answered and said, whether He be a sinner or no, I know not; one thing I know, that, whereas I was blind, now I see.—St. John ix.: 25.

"I have a life with CHRIST to live,
But, ere I live it, must I wait
Till learning can clear answer give
Of this or that book's date?
I have a life in CHRIST to live,
I have a death in CHRIST to die—
And must I wait till Science give
All doubts a full reply?

"Nay, rather while the sea of Doubt
Is raging wildly round about,
Questioning of Life and Death and Sin,
Let me but creep within
Thy fold, O CHRIST! and at Thy feet
Take but the lowest seat,
And hear Thine awful voice repeat,
In gentlest accent, heavenly sweet,
'Come unto Me and rest;
Believe Me and be blest!'"

St. John devotes a whole chapter to the story of the man born blind, whose eyes were opened by our Lord. When we find about 40 verses describing a miracle similar to one which St. Mark describes in a few words, we cannot but feel that it is intended to teach us many valuable lessons. Let us glance quickly over the story.

The blind man's eyes are anointed with clay, and he is sent to the pool of Siloam to wash, and returns with the wonderful gift of sight. Though he can now see the light, he has not seen the face of his Healer. The Jews at once assail him with hard questions; "How was this miracle worked? Who did it? You must not put your trust in Him, for He is not a prophet. You are ignorant, but we are learned in God's Word, and we can prove to you that this man is a sinner—why, even in doing this miracle He was breaking the Sabbath." They press him hard, and his position is a difficult one. They have had the advantage of light for many years, while he has been in darkness until now. They are educated, while he is ignorant. They are well posted in the Scriptures, while he, probably, knows little or nothing. Can they break down his new-born faith in a Christ he has never seen and of whom he knows only one thing? Surely such a weak, defenceless faith must go down before the fierce attack of well-armed and determined foes! He cannot answer the arguments, how can he tell whether the Stranger he has never seen is a sinner or a prophet? But his faith—weak and ignorant though it may be—is strong enough to withstand any attack, for the simple reason that it is founded on fact. He cannot answer their clever arguments; but his faith is unshaken, nevertheless. He only knows, "one thing," but that one thing means everything to him. One who has been blind all his life, but has now the power to see, cannot be convinced by any amount of argument that he is still in the dark. "One thing I know," he declares, positively, "that, whereas I was blind, now I see."

Surely there is help in this story for those whose faith is young and weak, and who are finding themselves already beset with hard questions, questions which they are powerless to answer. One clever opponent points a finger of scorn at the man who still is old-fashioned enough to pin his faith to the Bible. "Read it," he says, "and you will find it full of inaccuracies and errors. Why, it is constantly contradicting itself. How can it be the inspired Word of God?" The weak Christian, whose eyes have just been opened, knows nothing of Hebrew or Greek, cannot compare the many and varied versions of old manuscripts, cannot explain one of the innumerable hard questions which are hurled at him. He is wise if, like the man born blind, he makes no attempt to use weapons which he has not proved, and which will injure himself instead of helping his cause. Like the man in the story, he can fall back on a fact he has proved by experience. He knows that he has stepped out from darkness to light, and that marvellous change means everything to him. He may not be learned enough to reconcile all the truths of religion with the proved facts of science—only perfect knowledge can possibly explain all the difficult questions that force themselves upon us—he has never seen the

face of Christ, and knows very little, as yet, about Him. If you are in that position, avoid the snare of professing to know and believe more than you really do know and believe. Just because someone else has had spiritual experiences, which he and you think ought to be yours too, don't pretend that they are yours if they are not. If you only know certainly "one thing"—that your eyes have been opened to see the difference between darkness and light—the eternal difference between right and wrong—don't pretend that you know Christ as a personal Friend, and that He is all the world to you, as He may be later. The life of God in the soul is like the life of the body, it grows and increases steadily, if properly treated. The man whose eyes were opened held firmly to the fact he knew, and did not attempt to assert things of which he was ignorant, and he was soon rewarded by seeing Christ and learning that He was the Son of God. He was not to be shaken in his bold confession of faith, though he was cast out of the synagogue—a heavy penalty—because of his daring assertion in opposition to learned and influential men, that One who had done so much for him must be "of God." And, because he was true and loyal in holding firmly to the little he knew, more light was soon given to him. He did not as yet know Jesus, but Jesus knew him, and, coming to him, revealed Himself as the Son of God, and received the adoring worship of this single-minded believer.



FARM HOME OF W. H. ENGLISH, HARDING, MAN.

However weak your faith may be, never try to make it appear stronger than it really is. Unreal profession is "cant," and is an abomination to God and man. If you only know "one thing"—that sin is wrong, being an offence against your own sense of right; and that holiness of thought and deed is a thing greatly to be desired—then hold fast to that one thing, and act on it. Your eyes are open, drink in all the light you can get. Read the Bible, and find out what those who know more than you have discovered about the God who is, as yet, personally unknown to you. Seek Him with earnest determination to find out what is the Truth, and you will soon know—really know by your own experience—far more than "one thing." He Who is The Truth is seeking for you, far more earnestly than you are seeking for Him, and when you are ready to accept Him as the Son of God, He will reveal Himself to you. If you have formed the habit of honestly acting on the things you know, you will then, like the man in this miracle-parable, worship Him as your lawful King and God. If you always follow the light you can see, by doing unflinchingly what your conscience tells you is right—even though you may suffer pain and loss by your bold action—then you will gradually, but very certainly, gain more light.

Perhaps you have been brought up in a good old-fashioned way, believing—or thinking that you believe—in the

God of your fathers. You go away from home, and find to your surprise that everybody doesn't believe as your father and mother do. Perhaps the faith on which you thought you could rely is not really your own, but is only their experience, accepted at second-hand. A testing-time is a good thing, because it shakes you out of the comfortable idea that you believed, when really you only accepted unquestioningly the belief of others. But, though you may find it impossible to accept as absolute truth everything your parents believe so firmly, don't think that you have to be either a hypocrite—pretending to a faith that you have not—or an Agnostic—declaring that nothing can be known with any certainty. "One thing" you know, beyond the possibility of doubt; you know that righteousness of life and purity of thought, kindness, temperance, courage and truth, are treasures of priceless value. You know that hatred, meanness, lying, crooked dealing and unholy thoughts, will most surely drag any soul down from glory into shame; and that if you do not obey your own conscience you will have to endure the misery of standing like a culprit before its stern condemnation. You know that sin is darkness, and that righteousness is light. Well, let no arguments about modern views of religion make you forget that you do see the light clearly, that you know its priceless value, and that you intend to walk with steady step along the path you know to be right. Don't give up prayer

some of the things of God, and we all have yet many things to learn. As Tennyson says:—trust comes from God—"A beam in darkness: let it grow!"

HOPE.

The following poem is one of several that were sent (together with a very kind letter), by Edith F. Smith, S. Croix, N. S.:

"WITH ME."

St. Matthew xxvi.: 40.

The shadows lay so deep on Olivet,
And silent midnight was on all the land,
One watcher only in the darkness craved
A thought of love, a touch from human hand.

He came at last to seek it, but in vain,
And sadly through the darkness went away:
One tender word, one look of love that night
Had been how sweet to Jesus none may say.

But once again He comes, and comes to thee,
His busy worker in the harvest-field;
"Can'st thou not watch with Me one silent hour?
I crave far more than busy hands can yield.

"I want the fervent love that tells itself
In deep sweet breathings of a heart at rest
Beneath the shadow of Eternal wings,
Like the beloved disciple on My breast."

Then in the silence let Him speak to thee,
And in the reverent hush look up and tell
The love that He hath kindled in thine heart,
And seek in that blest Presence thus to dwell.

Yea, "tell it out,"—unto thy Father tell
The preciousness of Christ to thine own heart,
Then wait, and listen till He speaks again:
Thou hast in wondrous fellowship a part.

And He hath need of thee, thy love is dear,—
Thine uttered love,—told waiting at His feet;
And hurry not to service till prepared
By quiet waiting in His presence sweet.
—C. W. Ashby.

THE FRUIT TREE.

The Tree's early leaf-buds were bursting their brown;
'Shall I take them away?' said the Frost, stealing down.
'No, leave them alone,
Till the blossoms have grown,'
Prayed the Tree, while he trembled from rootlet to crown.

The Tree bore his blossoms, and all the birds sung:
'Shall I take them away?' said the Wind as he swung.
'No, leave them alone,
Till the berries have grown,'
Said the Tree, while his leaflets all quivering hung.

The Tree bore his fruit in the midsummer glow,
Said the little girl, "I may pluck your bright berries, I know?"
'Yes; growing is done;
Therefore for you every one,'
Said the Tree, while he bent his laden boughs low.

Bjornsterne Bjornson.

A California joker sent a telegram to his friend who was particularly "close" in money matters. The telegram was, "I am perfectly well," and it was sent "collect." Evidently the telegram set the mean man thinking. A week afterward the joker had a very hearty package brought to him, with nearly \$5 to pay on it. On opening it, he found a stone, with his thrifty friend's card and these words: "This represents the weight your telegram removed from my heart."

MARY'S TIMELY VISIT.

Dear Dame Durden:—"Martha" has expressed a wish for the recipe for rhubarb wine that I mentioned in a former letter, so I hasten to send it, although I feel that perhaps you will think I am coming too often.

Rhubarb Wine.—Five pounds rhubarb to one gallon water. Cut the rhubarb very fine; let it stand in the water (cold) for twenty-four hours; then strain through a cloth and squeeze well. Let the liquor stand for a day; then pour it off clear from the sediment upon three and one-half pounds brown sugar, the rinds of two lemons sliced very thin and also the juice. Keep stirring at intervals for another day until the sugar is quite dissolved; then put in a jar (stone spirit jars we used to have) not quite full; add one-quarter of an ounce of isinglass to a pint of the liquor and when the isinglass has quite dissolved add it to the wine and stir well. Let it stand for three weeks with the cork lightly placed at first. Bottle on a fine day in the fall or early winter. Use wooden spoon to stir. My mother made wine from above recipe for many years and always turned out well. The color was a clear amber and it was well liked.

I wonder if Martha would be kind enough to tell me the name of the washing machine she has used for so long with such satisfaction. I want one—could have had it long ago, for my "good man" often reproaches me for not getting one, but there are so many different kinds and when I do get one I want it to be the best. If I may, I should like to write again soon.

MARY.

(Your recipe for rhubarb wine came just the day after it was asked for by another correspondent. I hope you get a good washing machine. One of the chief beauties of a machine is that with it almost any member of the family can be utilized in running it. Come as often as you wish. The door is always open.—D. D.)

AN INVITATION TO DINNER.

Dear Dame Durden:—I saw in a previous issue that Northumberland wanted a recipe for English muffins, and as I think I know the way they are made, perhaps you will be so kind as let her have it when space permits. I also hail from the canny north. I wonder what part of the country she is from. Berwick, Coldstream and Wooler are all familiar to me, and heather-clad Cheviot. I wish I could invite you to dinner, the chief feature of the menu to be a grilse (young salmon) drawn fresh from "Tweed's Silver stream" cooked a la Berwick, and Northumberland "kneadies" and heather honey. Is your correspondent well acquainted with these dainties? Now for the muffins:—Take well risen bread dough, roll out, cut in rounds, and raise like ordinary rolls, only remember to have them fairly thin. Bake like soda scones, on the top of the stove, only turning once. Flour the pan you bake them on. When cold, just tear the edges apart, heat well through and butter liberally. Only practice is needed in the baking to ensure success. I also saw a request for gingerbread. I think from "Suffolk Lass," and as perchance our husband's tastes may be somewhat similar, I send a recipe from Beeton's Household Management, guaranteed good, and just the thing for an emergency, as it will keep (if it is not discovered) for a fortnight:—Take one pound treacle, one-fourth pound butter (or pork dripping), one-fourth pound brown sugar, one-half ounce allspice (or cloves), one and one-half pound flour, one teaspoon baking soda, one-fourth pint warm milk, two ounces ground ginger, three eggs. Mix dry ingredients well together, add butter and treacle (warmed), then the eggs, whisked; and the soda dissolved in the milk. Bake in a well buttered tin, in a moderate oven for an hour, or rather longer should the gingerbread be very thick. Do any of the circle use paper blankets? They are so light and warm that I must give the idea, although I am afraid my letter is already too long. Take any light material, the size of the

bed, double, and within the fold line with large sheets (any may be used, even newspaper, if doubled) and baste roughly together with wool. I am grateful to a kind member for the suggestion of lining men's waistcoats; the idea was made use of directly, so I thought I should send my mite in exchange. I must apologize for the length of my letter. The corner is a great source of instruction as well as amusement, but what a lot of patience you must have, Dame Durden, to peruse all these letters. With hearty good wishes to all.

HEATHER HONEY.

(Don't I wish you could invite me to that dinner! I'd accept with most "ungentle" alacrity. It appeals to me at this very minute, for it is lunch-time and shortly I'll be sitting down to a meal composed largely of canned things, instead of young salmon and heather honey, and, delightful mystery,—"kneadies." What are they, anyway? It would be some comfort to know just what I'm missing.

Did you notice I changed your name as we have another "Tweedside." If you do not like this one, send in another soon.

It does not require patience to attend to the Ingle Nook. Just time, and I consider it time well spent, and as instructive and interesting to me as to any of you.—D. D.)

MATS FROM STOCKINGS.

Dear Dame Durden:—I have read with great interest the items found from time to time in the "Ingle Nook" of FARMER'S ADVOCATE—and also tried with success many of the recipes contributed by the members, although not one myself. I came here from "Tyne-side, England three years ago, and as you may suppose, found things very different to what I had been used. In packing I used a quantity of old stockings, which have since been made into a comfortable mat in the following way:—Begin at the toe and pull the knitting out, then wind the ravellings round three or four fingers until you have it about two dozen times. Cross the ends and fasten, either by sewing or tying with strong cotton, right through the whole of the ravellings on the fingers, making it tight and firm in one place, which makes the rest of the ball spring out. Make all the wool up in this way and then fasten a piece of canvas (coarse harn or sacking) in frames, just as you would do if making a cloth mat with clippings. Mark it in the patterns you wish; then hold the little wool balls under the canvas and sew firmly on as close as desired, arranging the colors to suit your own taste. I hope this is plain enough to be understood by Alberta A. or any of the other members of the "Nook." Many of us, I am sure, have appreciated the letters on "Sanitation," by Dr. Davidson. With the best wishes of a

"BENSHAMITE."

INGLE NOOK CHATS

RHUBARB PRESERVES AND TENNIS PUDDING.

Dear Dame Durden:—I can not tell you how sorry I am for making a mistake in "lemon curd." I meant to say beat the eggs well, not beat the eggs. I am sending a recipe for rhubarb preserve. Cut four pounds into inch pieces; add juice and rind of one lemon, four pounds of sugar. Cut the rhubarb and put in a crock and pour the lemon juice on it. Cover it for twenty-four hours and then boil for one hour. This will keep for two years.

Here is a recipe for a very nice cold pudding called tennis pudding. Line a basin with thin bread, and after cooking some juicy fruit pour it into the basin. Then put a thin layer of bread on top and put a plate over it. Set in a cold place, turn it out when wanted into a glass dish and pour cold boiled custard over it. This is very nice in the summer time and is an English recipe. I wonder if anyone can give me a recipe for curd cheese or cream cheese?

LEEDS YORKSHIRE LASS.

(Cream Cheese.—Take a quart of sweet milk, adding a cup of cream if a rich cheese is desired. Add a few drops of liquid rennet or a piece of a rennet tablet, according to directions. Place in a warm corner for twenty-four hours; then throw in a little salt and stir well. Wring out a napkin or piece of linen in ice water; put the cheese in it; tie up tightly and hang up to drain. Change the napkin after a few hours and hang up again. The cheese is ready to eat in twenty-four hours after being put to drain.

The mistake, I am afraid, was ours, not yours, this time, and we are sorry about it, too. Thanks for the recipes. Do they call it tennis pudding because the family raises a racket when they do not get it?—D. D.)

RUBBER BOOTS AND COMFORT.

Dear Dame Durden:—Since last writing you, I have been trying the bachelor life, my husband having gone to Edmonton, where he is making sweets. I have had some great experiences since "batching" it. I am not quite so bad off as some of the bachelors as I have three little ones to talk to.

Do any of the Chatterers do, or help to do, the chores? If you do, don't be without a pair of top rubber boots; they may save you a big doctor's bill, besides the comfort of having dry feet. I have had to wade up to the tops of my rubber boots through snow and water this spring. One morning I went on the run to a neighbor two miles away (three inches of fresh snow and had to wade the creek) for help for a sick cow. What would I have done if I had had no rubber boots? I would have had to stay at home and run the chances of losing my cow. Comfort before style I say.

I like "Dell's" idea about fixing up a house. I have my house clothed and papered much in the same way, only I did not sew the cheese cloth together, but just over-lapped it a little and tacked it, putting several tackings in the center of the cotton. It is the cotton that holds the paper on. But if Dell lived here she would be told, as I was told when I got all papered, that I was putting on too much style for a homesteader, and that I had better go back to the city, where such style was carried on. I do like a few comforts, no matter where I live. On my dividing walls I did not put the wall paper, but cut suitable pictures out of magazines or the FARMER'S ADVOCATE and pasted them on, first making a center piece of wall paper and border. It just looks fine, and the children learn such a lot from the different pictures. I have pictures of Kings, Queens, birds, animals, houses, and pictures showing how to fix different rooms.

My husband got an idea from one of the pictures about how to fix a shelf for the wash dish in the kitchen. Take a board, cut a round hole in it so the dish will fit down in it, fix the board on two brackets and fasten it in a corner, having the soap dish hanging on the wall. Put a piece of oilcloth on the wall to keep the water from splashing, and have the looking glass, comb and brush rack hung in this corner. Another handy thing for this corner if there is room, is a piece of oilcloth or coarse linen made into a pocket with two or three different little pockets, for tooth brushes and lead pencils that are not to be found when wanted. I nearly forgot to say there is no danger of the children tipping the wash dish and spilling the water when fixed that way.

For those that like to grind their own coffee and have no coffee grinder and have a meat grinder try the latter; it works fine.

As it is garden time now, I think we ought to say something about the hands. Canvas mitts or gloves are just the thing, and can be made at home. I make the mitts and intend to try making a pair of the gloves.

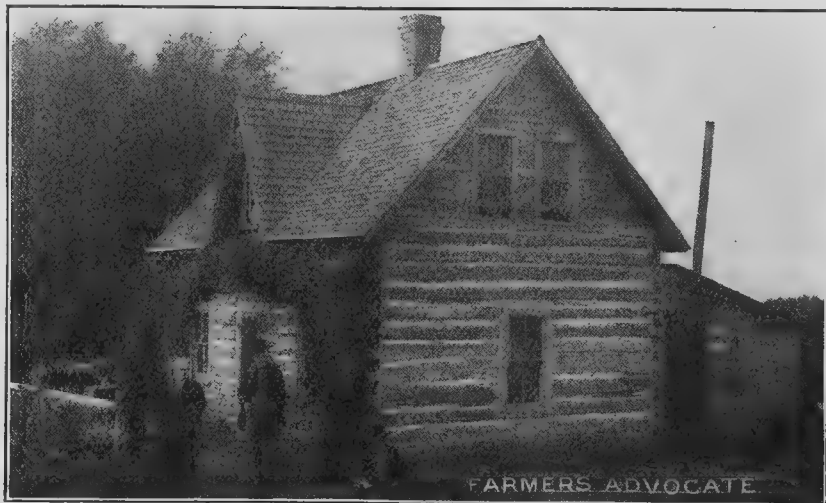
I must ask if any of you have a recipe to make soda crackers or anything like them. The favorite bread is fine, and so is the parkin which was new to me. Before I got the bread recipe, my husband wanted to take a loaf of my bread for the corner stone of the house, but now he thinks it is too good to waste in that way. Excuse mistakes, as the little ones do not care about mother writing. They want me to go out doors.

A LIVELY CANADIAN.

(I do not know any method of making soda crackers at home, but perhaps some one else can help.—D. D.)

METHOD OF MAKING HANDSOME RUGS.

Dear Dame Durden:—May I come in? I have often sat in the spirit in the corner and listened to the "wise and otherwise" remarks of the cornerites. I see in the issue of May 29th a request for instruction re mats made from old socks. I have made very nice ones by this method: Cut the legs into strips about three inches wide lengthwise and as long as you can. Now ravel in the edges on each side, leaving about a half inch in center to sew on by. When you have a good large amount ready, take a piece of canvas or old linen bag and sew the pieces on very close together, so that they will stand up full. The effect is quite rich. You can make it hit or miss, or, by dyeing the socks and making say a black border with colored center, you will have a handsome rug. We used to have them in front of our beds to step out on in winter. I think I have made myself clear. If any one would like a recipe for scripture cake I will send it to you. I made one some time ago for a church social and sold slices of it at ten cents each, making quite a nice little sum. Every ingredient is mentioned in scripture—hence the name.



MRS. WALLON'S HOME NEAR BOWDEN, ALTA.

MADAM JEAN.

Children's Corner

LONGING FOR SLEIGHS AND SNOW.

Dear Cousin Dorothy:—This is my first letter to the C. C. I have a cousin Donald in Millwood who sends my dad the *ADVOCATE* every week. My dad was once a soldier in Nova Scotia and now says he would like to be there again. Donald sent him a picture post card with a day's catch of fish on it. My dad likes to go fishing very much. Sometimes he goes out in the early morning and does not come home till night, having caught nothing. I saw in one *FARMER'S ADVOCATE* that Lorna M. Bernard says she cannot go to school because the snow is so deep, and Willie Harris has a dog which pulls his sleigh on the snow. I wish we could have plenty of snow here so that we could have sleighs, for dad says they are fine. I hope you will not mind a little English girl writing to you.

DOREEN VICTORIA BRALEY. (9)
Leicester, Eng. (b)

MORE POULTRY RAISERS.

Dear Cousin Dorothy:—We have taken the *ADVOCATE* for about four years. My parents lived in Chicago ten years; then moved to Brandon four years ago. The first three years we lived within two miles of Brandon, and the fourth year we moved to Brandon Hills. Last year we had seventy-two hundred bushels of grain. This last fall we moved thirty miles from Strassburg, Sask., where we are living now. We have eight hundred acres of land. I have two brothers. Last fall my father bought us three different kinds of purebred hens: Silver Laced Wyandottes, White Wyandottes, and Brown Leghorns. So we each have a pen of chickens to look after.

JOHN BOOTH. (11)
Saskatchewan. (a)

A DOG AND THREE CATS.

Dear Cousin Dorothy:—My father takes the *FARMER'S ADVOCATE* and we like it very well. I like to read the Children's Corner very much. We have got thirty-one head of cattle and eight horses. The horses' names are Queen, Kitt, Flora, Lady, Fanny, Tommy, Pet and Puss. We have a dog named Shep and three cats. I have two brothers and some sisters.

ALICE PIERCE. (12)
Alberta. (c)

FUN AT SCHOOL.

Dear Cousin Dorothy:—I thought I would write a letter to your Corner as I saw nice letters written by other girls and boys. I live in McLean and I go to school every day. I am thirteen years old and am in the fourth class. We have taken the *FARMER'S ADVOCATE* for four years and think it is a very good paper. I always read letters from the girls and boys and think them very interesting. We have two dogs whose names are Sport and Witch, and one cat named Snowball. We had fun in the winter coasting down a hill which is behind our schoolhouse.

HATTIE R. COLES. (13)
Saskatchewan. (a)

TUFFY AND FLUFFY.

Dear Cousin Dorothy:—I have enjoyed reading the letters of the Children's Corner, so I thought I would write, too. I live in Hullcar, six miles north of Armstrong. I live on a farm of 860 acres. We have a lot of cattle and sixteen horses. We have about fifty chickens and two pigs. For pets we have a dog and two cats. The dog's name is Prince and the cat's names are Tuffy and Fluffy. I have four brothers and one sister. My two eldest brothers are at the Columbian College at Westminster. I am ten years old and my sister is seven. My birthday was on the ninth of December.

ANNIE PARKINSON. (10)
British Columbia. (a)



THE HURON CHIEF'S DAUGHTER.

THE HURON CHIEF'S DAUGHTER.

The dusky warriors stood in groups
around the funeral pyre;
The scowl upon their knotted brows
betrayed their vengeful ire.

It needed not the cords, the stake, the
rites so stern and rude,
To tell it was to be a scene of cruelty
and blood.

O, lovely was that winsome child of a
dark and rugged line,
And e'en 'mid Europe's daughters fair
surpassing might she shine;
For ne'er had coral lips been wreathed
by brighter sunnier smile,
Or dark eyes beamed with lustrous
light more full of winsome wile.

And yet it was not wonderful, that
haughty, high-born grace—
She stood amid her direst foes a Princess
of her race;
Knowing they'd met to wreak on her
their hatred 'gainst her name—
To doom her to a fearful death, to pangs
of fire and flame.

One moment,—then her proud glance
fled, her form she humbly bowed,
A softened light stole o'er her brow, she
prayed to heaven aloud:

"Hear me, Thou Great and Glorious One,
Protector of my race,
Whom in the far-off Spirit Land I'll
soon see face to face!"

Pour down Thy blessings on my tribe;
may they triumphant rise
Above the guileful Iroquois—Thine and
our enemies;
And give me strength to bear each pang
with courage high and free,
That, dying thus, I may be fit to reign,
O God, with Thee."

Her prayer was ended, and again, like
crowned and sceptered Queen,
She wore anew her lofty smile, her high
and royal mien,
E'en though the chief the signal gave,
and quick two warriors dire
Sprang forth to lead the dauntless girl
to the lit funeral pyre.

Back with an eye of flashing scorn
recoiled she from their grasp,
"Nay, touch me not; I'd rather meet
the coil of poisoned asp!
My aged sire and all my tribe shall
learn with honest pride
That, as befits a Huron's child, their
chieftain's daughter died!"

She dashed aside her tresses dark with
bright and fearless smile,
And like a fawn she bounded on the
fearful funeral pile;
And even while those blood-stained men
fulfilled their cruel part
They praised that maiden's courage
rare, her high and dauntless heart.

—R. E. M. LEPROHON.

"So you are anxious to become my
son-in-law?"

"No sir, you misjudge me; I am
anxious to marry your daughter; if
it were possible to do that without be-
coming your son-in-law I would
gladly have it that way."



DAINTY, SPARKLING

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Gossip

AGRICULTURAL EDUCATION IN GERMANY.

Among the distinguished delegates to the semi-centenary of the Michigan Agricultural College were Dr. Steinbrück of the University of Halle, Germany, and Nikola Kaumanns, whose business card describes him as the "Imperial German agricultural attaché to the United States," with headquarters in the First National Bank Building, Chicago. To a representative of the press, who interviewed him, Prof. Kaumanns said:

"While Germany really is a pioneer in agricultural science, her advance in that line is not to be compared with that of America. There are several reasons for this. One is that our farmers—and our people generally—are more conservative, and they hesitate before accepting new ideas.

"Another reason is found in the fact that the German Government has not been generous in the distribution of funds for the purpose of advancing agriculture on a scientific basis. This is where the American agricultural colleges and experiment stations have a great advantage over similar institutions in Germany. They are provided with funds for the distribution of free literature among the farmers, and receive plenty of money to carry on the work. In this regard Germany has been handicapped; yet we have made great progress, and the outlook for the future is very encouraging. We have an agricultural college in every state, and they, with the experiment stations, are doing a grand work."

At the Royal Jersey Society's show at St. Heliers, May 14th, seventy-one cows competed in the one-day test. The first prize and the English Jersey Society's gold medal were won by Mr. E. Godel's Bermuda, whose yield 160 days after calving was 38 lbs. 12 ozs. milk, and 2 lbs. 6 ozs. butter; ratio pounds of milk to pounds of butter, 16.31. The silver medal cow, 261 days after calving, gave 33 lbs. 4 ozs. milk, and 2 lbs. 5½ ozs. of butter; ratio, 14.8.

The well-printed and illustrated pamphlet recently issued by the Canadian Ayrshire Breeders' Association, containing the minutes of the annual and directors' meeting of the Association for 1906-7, should be secured by every farmer interested in the breed. It contains, besides the minutes of meetings, the scale of points for judging Ayrshires, and the rules and regulations for the Record of Performance, and is liberally illustrated with portraits of notable prize winners at principal Canadian shows. Parties desiring copies should write the secretary, Mr. W. F. Stephen, Huntingdon, Que.

A correspondent having written to the *Scottish Farmer* that he believed a mistake was made by the man who reported the case of a ewe having lambed twins on the 7th of April and a single lamb on the 13th of same month, another shepherd writes that he knew a case, that came under his own observation, in which a ewe dropped a second lamb thirteen days after she had given birth to a single lamb, both of which lived and did well, the first lamb being put on another ewe when the second came, and the latter nursed by the mother.

"I'm the luckiest man in town!" declared the real estate man. "I bought a \$10,000 piece of property this morning for just half price." "I know just how you feel!" said the pretty girl. "I bought two yards of 60-cent ribbon this morning for 30 cents."—*Detroit Free Press.*

"Well sir," thundered the judge, "why didn't you speak to her, may I ask?" "Simply," replied the husband, "because I didn't want to interrupt her."

A GOOD ANGUS SALE.

One of the most successful sales of Aberdeen-Angus cattle in America in recent years was that of C. J. Martin, at Adaza, Iowa, on May 28th, when 52 head sold for an average of \$270, the highest price, \$2,010, being paid for the five-year-old cow, Blackbird 26th, by Blackbird Monarch of Emerson, purchased by Donohoe Bros., of Leahy, Holbrook, Iowa. The highest price for a bull was \$1,500 for the six-months-old Black Defender, by Prince Ito 2nd, purchased by W. A. McHenry, Denison, Iowa.

A writer in the *Horse World* refers to a discussion over the query, "Has a grey or white horse ever been produced that did not have at least one grey or white parent," and says there was once a reward offered for evidence of such a case, no one taking advantage of the offer; but in looking through the Shetland Pony Studbook he had discovered two such cases, one sired by a black, and the other by a sorrell stallion. The rule referred to may apply, with very few exceptions, to the lighter breeds of horses, but in the case of Shires and Clydesdales we fancy the studbooks, especially the earlier volumes, would reveal not a few cases in which it has not held good.

"If I were President I would never appoint a bald-headed man on a diplomatic mission.

"Why not?"
"Why not, stupid? How could a bald-headed man split hairs?"—*Baltimore American.*

QUESTIONS AND ANSWERS.

PAYING FOR COWS

1. Please inform me if the exemption law holds good in the case of a man residing on his homestead for the first year or only to one who has secured his patent.

2. I purchased cows value \$175.00 from a neighbor, and paid \$50.00 cash down, giving a note for the balance (\$125.00). The note fell due, and I was unable to meet it. Can he claim cattle, or enter a judgment against them, their progeny, or products? There is no lien or chattel mortgage attached to the transaction. Please state what he can do, and how far the law protects me. I have a copy of the exemption law, so do not need recapitulation.

W. W. H.

Ans.—1. Under the Executions Act the land upon which the judgment debtor or his family actually resides or which he cultivates either wholly or in part or which he actually uses for grazing or other purposes to the extent of 160 acres, is exempt and free from seizure under all writs of execution issued by any court in this province. A homesteader has no right to his land, which may be seized under execution until the patent has issued to him, the land being wholly the property of the Crown until the patent issues.

2. If cattle have been purchased outright and no lien note or chattel mortgage given for their price, the judgment debtor is entitled to exemptions to the extent of three horses, mules or oxen and six cows, etc., and providing that he has not more than six cows including calves and heifers or more than three oxen including steers, these cattle cannot be taken under a writ of execution. The seller therefore cannot claim the stock unless you own more than the law exempts. Your homestead is the Crown's until you get your patent and afterwards is exempt from debt. The seller may at some time endeavor to recover when you have more property than the law exempts from seizure.

JOINT ILL.

Colt, ten days old, took joint ill. My veterinarian treated it. It broke and discharged matter. The swelling has disappeared, but it is still lame, and the opening still discharging.

D. K.

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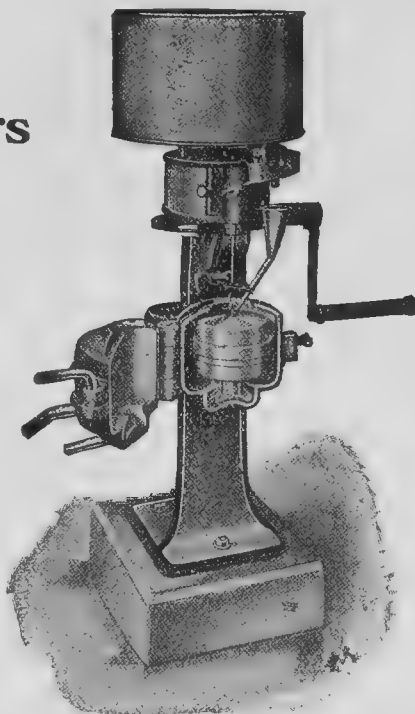
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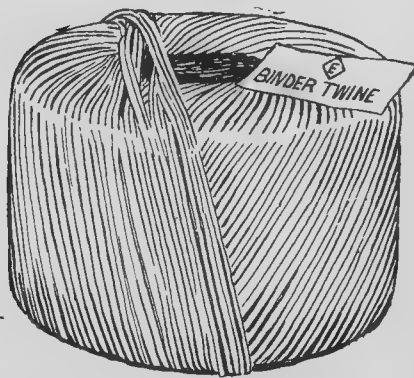
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Send us your order at the earliest possible date and likely we will be able to make up a car lot to your station, thus saving you considerable in freight charges. We shall be pleased to quote the price of twine in car-lots at any station in Western Canada.

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The Farmer's Advocate

Winnipeg, Man.

Ans.—Recoveries from cases of this kind are very rare, and it would have been better if you had left the case in the hands of your veterinarian. Flush out cavity with a four per cent. solution of carbolic acid in water, three times daily, and give 5 grains iodide of potassium in a little of the dam's milk as a drench, three times daily.

V.

BURSAL ENLARGEMENT.

Colt, two weeks old, has soft swellings below the knees on the outsides.

G. B. N.

Ans.—These are bursal enlargements that, in all probability, will disappear spontaneously. Leave them alone, and, if still present in the fall after weaning, blister them.

V.

HEIFER PASSES BLOOD.

Cattle were driven 25 miles in two days. One heifer passes blood, and she has not done well, and does not eat well. She is now on clover pasture.

S. S.

Ans.—Give her 2 drams each of gentian, nux vomica, powdered opium and solid extract of belladonna in a quart of warm water as a drench, three times daily. If there is any tendency to constipation, give one pint raw linseed oil, once daily as indicated.

V.

WHITE GRUBS IN STRAWBERRY PLANTATIONS.

Would you kindly inform me as to the best means of preventing the damage done to strawberries by the white strawberry grub? The grub referred to is about one and a quarter inches long by one-quarter or more in diameter when grown, and has a red head. Do you think a small amount of crude oil sprinkled near the plants would drive them away and not injure the plants. Do they come on top of the ground at night, and how long do they remain in the ground before they emerge as beetles?

O. B.

Ans.—The white grub to which you refer is the larva of what is commonly known as the May beetle or June bug. There are several species of these beetles, and the time required for full development of the larvæ of each is not definitely known, but, as a rule, they take two or three years to develop from the egg to the mature beetle. The eggs are laid by the female in sod or grass land, and the young grubs live upon the roots of grass and other plants. In such lands, they may often be found in all stages, from the newly-hatched larva to the full-grown grub. From the fact that they feed in this stage altogether below ground, it is practically impossible to reach them with any insecticide. The best way to avoid their injury in strawberry plantation is not to plant strawberries upon land which has been lately in sod. It is best to grow potatoes or some such crop upon the sod for a year or two before the land is planted to strawberries. About the only way to deal with them in a strawberry plantation where they are troublesome is to dig out the larvæ and destroy them wherever dead plants indicate their presence. Crude oil or anything of that nature which would destroy the larvæ would also destroy plant life.

O. A. C., Guelph. H. L. HUTT.

CLYDESDALE REGISTRATION.

I have an imported mare, and on the pedigree there are no numbers after her last four dams, and her own number is not on. Please tell me if I could get those numbers on, and where would I have to send her pedigree to do so, and the address? What does a transfer cost, and where can it be got?

SUBSCRIBER.

Ans.—You are fortunate if the last four dams at top of pedigree have registration numbers. Very few mares in the Scottish Studbook have more, and the probability is that more cannot be had. If you have a certificate from the Scottish Studbook, or more properly the Clydesdale Studbook of Great Britain and Ireland, signed by A. McNeillage, Secretary, the mare's pedigree will be

numbered in the volume of studbook in which it appears when published. The presentation of the certificate above mentioned renders her eligible to registry in the Canadian Clydesdale Studbook. If you want to register her in the Canadian Studbook, address "Accountant," National Live-stock Records, Department of Agriculture, Ottawa, asking for blank application forms for registry and transfer, which fill in as per directions on same, and mail, together with export certificate and necessary fees, to the Accountant as above. The fee for registering is one dollar to members, and two dollars to non-members. The membership fee is two dollars a year; the transfer fee, 50 cents. The rules and fees are printed on back of forms.

HORSES WITH SORE MOUTHS.

My horses are suffering from swollen lips. They all eat well and are in good condition. They have all been working during seeding and have not had a day's illness. The noses and lips feel rather warmer than usual. They dislike being touched on the nose. I had difficulty in putting bit in the mouth of one and had to work her with lines buckled to the halter. Please give me cause and the treatment of same.

Sask

"RAYMOND" OXBOW.

Ans.—It is difficult to say what was the trouble with your horses from your description, but must be some local cause, most likely something in the hay or mosquitoes. Try to remove the cause and your horses will get better without treatment.

POISONED CALVES.

Two calves were castrated at about two and four weeks old in April. The weather not being very fine they were kept in pen in stable. Pen was cleaned about twice a week and bedded daily. They appeared to heal up all right, and seemed perfectly healthy. About three weeks later lumps appeared on their faces something like lump jaw, only not fast to jaw, but in cheek. One became very badly swollen in cheek; could see no sign of swelling or anything wrong in mouth. Soon one broke in calf's mouth and very offensive smelling pus escaped. Calf soon became very sick, a cough developed, and calf failed rapidly; lumps were discharging pus into mouth continually. Eventually calf died. Before he died I lanced the lump from outside to see if I could get pus to run to outside, but nothing but some blood and serum came. The swellings don't seem as if they needed lancing; they feel quite hard. Fomenting didn't seem to reduce it at all. The only other treatment given was new milk with an egg and cup of boiled flax seed three times a day as long as calf would drink. Of course as soon as the lumps appeared the calves were kept outside all day. Now the other calf is going the same way. Can you advice treatment for such a case, and tell me probable cause?

Man.

C. G. G.

Ans.—Your calves were affected in a very peculiar manner. It was evidently a case of blood poisoning, but impossible to give anything like a proper diagnosis of such cases without seeing them. You should consult your local veterinarian.

RHEUMATISM IN HORSE.

Horse four years old had distemper a year ago. Swelling under jaw was slow in breaking, so we blistered. Horse went lame, more so in hind legs, all four legs swelling up. Little was done for it at the time. Was turned out on grass; lameness and swelling all left; only a slight stiffness in hind parts remained. Latter part of past winter lameness returned in hind legs with some cracking of joints indicating rheumatism. Can anything be done now? Horse was well taken care of last winter and looks fairly well.

Man.

H. P.

Ans.—Your horse is certainly affected with rheumatism. Give him Salol in one dram doses twice per day in mash and keep his kidneys acting by giving teaspoonful of nitrate of potash three or four times a week and rub muscles of hips with embrocation and do not leave the animal out in cold rains.

INJURED OXEN.

1. We bought an ox this spring. Last fall the owner struck him on the face just below the eye with a club. There is a large lump there now and it bleeds sometimes at the lower side of the lump. Kindly let me know if there is anything will take lump off. Does not seem to hurt him any, only bleeds and is red for about the size of a fifty cent piece like proud flesh at the bottom of lump.

2. Have an ox that got hind leg cut in mower last summer just above lower joint; the hair is off and at times it cracks and bleeds. Kindly advise if anything can make hair grow again and cure cracking.

Sask.

D. R.

Ans.—There is no doubt but that the bones of your ox's head have become diseased internally. Not much can be done for him. You might try a blister composed of biniodide of mercury, 2 drams; powd. cantharides, 2 drams; vaseline, 2 ounces. Cut off the hair and rub in well on the hard part; leave on for thirty-six hours; then wash off and apply vaseline. It may be lumpy jaw.

2. Keep part well greased with vaseline or mutton tallow and add a few drops of carbolic acid to the grease.

TUBERCULOSIS AND DEBILITY.

I have just had a grade Holstein heifer aged three years, die. She had had a cough since last spring, and never seemed to thrive very well although on abundant pasture. Last winter she had unfortunately to be outside most of the time and fed in the yard with about 125 other head. She never seemed to have a good appetite and never rustled around like the others. About three weeks ago she fell down on the road home, but I succeeded in getting her up again. The next day she seemed to have lost all power in her back, and till the time she died we had to raise her. We held a post mortem examination and found that under the hide and round all the muscles above the hocks, round the spine and root of tail, under the gullet and shoulders, there were lots of cysts, some large some small, full of a pale yellow transparent matter like a very thin, clear jelly. She had lumps all round her jaw, loose hanging lumps also full of this liquid. Her right lung was of a dark purple color, and breaking into fragments and much smaller than her left lung which seemed normal. There were present also round her heart and lungs and on some of the intestines more cysts full of the same liquid. Her blood was very thin and light in color and all her muscles seemed very soft and watery. The calf (a heifer) was in good condition, and well proportioned.

We have been wondering if she died from tuberculosis, but never having seen a case before cannot form any decided opinion. The cavity of the lung contained about a half a pail of water. I had a two-year-old steer die at Christmas time. He was very poor and had a cough also. Both these animals were sired by a purebred Holstein bull (registered). Your opinion of the matter would much oblige.

Man.

W. W. H.

Ans.—The heifer had tuberculosis which was hastened by debility and lack of nourishment toward the last. The disease is not transmissible from sire to offspring, but the tendency to it is, and when one gets two very pronounced cases from one sire there is the suggestion that a bull of more robust constitution should be used.

BREEDING HEIFER.

1. Calf two years old shows no sign of being in season. What can be done to bring her round?

2. Is eighteen months too young to breed a calf?

Sask.

SENEC.

Ans.—The only thing that can be done is to let her run in a herd with a bull.

2. No, not if she is well grown. Heifers frequently have their first calves at two years and sometimes at twenty months.

COLT OVER ON FETLOCKS.

Colt three weeks old was born weak and had to be helped up to suck, but after a couple of days got strong enough to get up alone, but is now walking on fetlock joints with feet turned back. Have been bandaging and also put on splints, but it is rather difficult to keep splints on. Was thinking of keeping him a month, then, if not better, killing him.

Alta.

A. L.

Ans.—You might try plaster of Paris bandages. First apply a nice bandage from top of hoof to half way between fetlock and knee; then mix up your plaster and apply all over the bandage. Keep the colt as quiet as possible. Probably the bandages alone would be sufficient to strengthen the legs. We have known them to go over until the fetlock became raw and then to suddenly recover apparently by learning to control their legs. If not better at a month there is not much hope for him.

BREAKING OXEN FOR WORK.

Please describe the breaking of a pair of two or three-year-old cattle to work.

Ans.—Steers intended for work are usually taken in hand at from six months to one year old, and gradually accustomed to being yoked up before being put to light work, say at two years old. When, however, it becomes necessary to break a pair of two or three-year-olds, not previously handled, the yoke (either the "bow" or "head" yoke, as preferred) is put on them, and they are turned out into a small field or yard, near the barn, first taking the precaution to tie their tails together. This is done to prevent their becoming "turned" in the yoke. After the cattle become accustomed to being yoked up, they are hitched to a light log, and allowed to haul it awhile. Then they will work on the plow, harrow or waggon with little or no trouble. In plowing, two men, or a man and a boy, are usually required, one to hold the plow, and the other to drive, the cattle being quite easily taught to mind the words "gee" and "haw" (right and left), the commands being gently enforced with the whip. A well broken pair of oxen require no driver in plowing, but are guided solely by the voice of the plowman.

DRENCHING HORSES.

Back the horse into a narrow stall. Slip a running noose of thin smooth rope (clothes line or window cord) over upper front teeth (incisors) inside of lip; then throw free end of rope over an overhead beam, raise horse's head sufficiently and hold it so by means of the rope. This seems sufficiently explicit, but as the instructions have been misunderstood it may be added that when the noose has been placed around the upper teeth, under the upper lip, the free end of the rope then is thrown directly over the beam above the horse's head, or passed through a pulley fastened to the beam for the purpose and then by means of the rope the horse's head is pulled up sufficiently high to allow of giving the drench. The noose is tightened upon the teeth and does not include the upper lip nor does it pass around the poll.

HAIRLESS PIGS.

What reason can you assign for sows farrowing hairless pigs? There has been a great deal of that in this part of the country this spring. Three years ago we had a very severe winter and lots of snow, so that sows took very little exercise unless forced to and there were many litters of hairless pigs and many weak litters that died.

Alta.

READER.

Ans.—We think one of the most sensible theories advanced in explanation of the prevalence of weak and hairless pigs and foals in Alberta is the fact that lime is a lacking quantity of the drinking water and soil of that country and that during winter live stock, sows especially, eat snow instead of drinking well water. W. F. Stevens reported that he had apparently improved matters by mixing phosphate of lime with the concentrates fed to sows and in addition putting a peck of quick lime in his well at intervals of about sixty days.

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Look through a microscope at milk set to cream in pans or cans and you'll see how they rob you. You'll see the caseine—the cheese part—forming a spider web all through the milk. You'll see this web growing thicker and thicker until it forms solid curd. How can you expect all the cream to rise through that? It can't. This



caseine web catches a third to half the cream. You stand that loss just as long as you use pans or cans for they haven't enough skimming force to take out all the cream. But, just the minute you commence using Sharples Dairy Tubular Cream Separator, you stop that loss.

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ENGINEER'S CERTIFICATE.

Will you kindly inform me where I am to apply to, to get the necessary papers to run an engine?

A. P.

Ans.—Write the Department of Agriculture, Regina, Sask.

CHRONIC COUGH, WORMS.

Would you kindly let me know how to doctor these horses? One of them a gelding bronco, broken two years has a cough and it is worse after he gets a drink of water and goes back to the hay. Coughs when he is at work. My hay that I am feeding is very dusty, but does not seem to affect the other horses. Two of the horses are affected with worms and one with bots. Would you be good enough to give me a prescription for a horse that is pretty thin. He eats well but does not seem to put on flesh. The horses are all between nine and ten years old and about fourteen hundred in weight.

Sask.

J. D.

Ans.—1. It is a great mistake to feed dusty or musty hay, especially to a horse that has a chronic cough, or is showing symptoms of "broken wind," as your bronco decidedly does. If you must feed dusty hay, shake the dust out of it as thoroughly as possible and dampen it before feeding it to any of your horses. To the animal you have mentioned feed only a moderate quantity of hay at any time. Give morning and evening in food or water for two weeks: 1 ounce Fowler's Solution of Arsenic.

2. Prepare each of the horses for a dose of purgative medicine by feeding exclusively on a mash diet for sixteen weeks and then give to each the following: Barbadoes aloes, 7 drams; colomel, 1 dram; ground ginger, 2 drams; soap, sufficient to form a bulb. When the purgative has ceased operating, give morning and evening, in food, or by placing well back on the tongue with a tablespoon, for one week, one of the following powders: Ferri sulph. bicarbonate of soda, and powdered gentian, of each, 3 ounces; nux vomice, 2 ounces. Mix, and divide into twenty-eight powders.

3. Examine the horse's teeth and if they are found to be uneven, with sharp projections, have them dressed with proper instruments and by a competent person. Give in a scalded bran mash, containing a teacupful of flax seed, one of the following powders, every night for two weeks: cupri sulph., one and one-half ounce; cinchona pulv. and nitrate of potassium, of each two ounces. Mix, and divide into fourteen powders.

BUNCH ON LEG.

I have a gelding four-year-old, got cut in wire about two years ago, on front of hind leg just above the ankle joint and healed up all right, but left quite a bunch, which seemed to be loose; could move it round with fingers. I drive him considerably and I thought I would blister it and see if that would remove it. Blister worked O. K., but the whole leg up to the hock joint swelled about one-third as large again as normal. Take him out and work for an hour and the swelling goes down all except where the bunch was. It is about two weeks since I blistered him. What shall I do? Do you think it will get all right? Prescribe.

Sask.

T. H. T.

Ans.—A blister produces a superficial inflammation of the skin which sometimes has a tendency to spread considerably beyond the parts to which it was applied and intended to only act upon, and such is the case with your horse's leg. Wet the parts two or three times daily with the following solution: nitrate of potassium, 6 ounces; vinegar, 1 pint, add water to make one-half gallon. Continue until the leg becomes as it was before you applied the blister. After this, paint the "bunch" every alternate day, for one week, with compound tincture of iodine. Leave off for one week and repeat. Do this for three months.

GOSSIP

THE CARE OF YOUNG PIGS.

Pigs should be stirred about in their bed when two days old and be closely observed each day thereafter and made to take considerable exercise. The bed for the sow and litter must not only be free from draft but must also be dry and free from dust. Bright baled wheat straw seems to be especially well adapted for bedding the sow and litter. Rye straw seems to cause coughing and oat straw is not fit for such purposes. Grass or some succulent feed should be provided for the sow and litter and the pigs should be allowed a liberal amount of solid food as early as they will partake of it. It seems to be necessary to the health of the pig that he be able at any early age to procure solid food in considerable variety. The usual form of creep should be used for the little fellows to make it possible to feed them unmolested by their mother. A separate lot and sleeping house should be set apart for the use of each sow and litter. In cool, damp weather especial care must be exercised to prevent thumps. The practical eye of the experienced feeder at once sees the danger of thumps in the sleek, glossy coat of his little beauties. The sure quick remedy for thumps is exercise, either by brisk driving or by dropping the affected pig into an empty barrel or box apart from his mother and allowing him to fret and try to get out for an hour or so each time and two or three times each day until the trouble disappears. If the pig gets stupid and refuses to fret and jump when placed in the empty barrel, lay the barrel down and roll it back and forth with the pig in it for a few times; this will wake him up and cause him to want out. Scouring is usually due to either a damp bed or the condition of the sow's milk. Upon the first appearance of scours among the pigs, give the sow a tablespoonful of sulphur or about the same amount of slaked lime in her feed until the trouble disappears. See that the bed is kept dry and free from dust or draft. The addition of lime seems to be an advantage to almost any ration; use it in the proportion of about one tablespoonful of slaked lime to each two hundred pounds of hog. The addition of lime to the ration seems to grow a much stockier stout built pig, and to develop the litter very uniformly. Continue liberally feeding the sow and litter up until the pigs are eight or ten weeks of age, when the sow should be removed entirely out of sight or hearing of the pigs, and after about five days she should be ready to breed for the succeeding litter. Such treatment should produce more than one hundred strong, healthy, vigorous pigs each year to each half dozen sows used in the breeding herd.—W. A. Hart, before Indiana Swine Breeders.

A FEW TIPS ON CEMENT AND CONCRETE WORK.

Ideal concrete is made of cement, sand and crushed rock. The sand should be coarse, clean and sharp. River bottom sand, when fine and round, should not be used where much strength is required.

TWO TESTS OF SAND.

As a test of sand, rub it in the hand and if there is much dirt left on the hand discard that sand. If, when a large handful of the same is thrown into a pail of water, it leaves the water muddy, discard it. A dirty sand makes a weak concrete. Crushed rock is much better than screened graves because of the rougher edges.

PROPORTIONS TO USE.

Following are the four recognized mixtures for concrete:

1. Rich mixture—1 part Portland cement, 2 parts of clean, coarse sand, 4 parts of crushed rock. This is used for floors, fence posts, etc.

2. Medium mixture—1-2½-5 (parts respectively of cement, sand and crushed

cork). This mixture is used for walks, thin walls, etc.

3. Ordinary mixture—1-3-6; for heavy walls, piers, abutments, etc.

4. Lean mixture—1-4-8; for footings and in places where volume and not great strength is needed.

When gravel is used the proportions are one part of cement and from six to nine parts of gravel, according to the amount of sand in the gravel.

To make one cubic yard of concrete, the following respective amounts of cement are required: Rich mixture, 1½ bbls.; medium mixture, 1¼ bbls.; ordinary mixture, 1¼ bbls.; lean mixture seven-eighths of a barrel.

In construction work, such as floors, barns, fence posts, bridges, etc., reinforcements of iron are absolutely essential. The beginner will need the supervision of an expert in using reinforcements.

RULES FOR MEASURING AND MIXING.
Measure exact amounts of each part. Mix thoroughly, and not too long before applying the water. Cement will set in twenty to thirty minutes, and is disturbed after that loses its strength.

Spread the sand and cement on a mixing board, and mix thoroughly, adding enough water when mixed to bring the mixture to the consistency of mortar. Add the proper quantity of crushed rock and mix all together, after which it is ready for use. In this manner the sand grains are all covered with the finer particles of cement, and the crushed rock when added has all the voids filled with the temperate

which should not be necessary with a reasonable amount of care upon the part of the applicant when the application is made out. If the results are to be satisfactory in the transaction of business with the Record Office, it is necessary that the application be correct and complete. With this object in view, attention is drawn to some of the points often overlooked.

FEES must accompany all applications before pedigrees are recorded and certificates issued, and must be sent direct and payable to "Accountant, National Live Stock Records." No exception whatever is made. Hereafter, cheques, money orders and postal notes will be returned together with the application unless made payable to "Accountant" as above directed. If fees are sent in bills or silver they should be registered. Silver should not be enclosed in large envelopes. See that the correct amount of fees are forwarded. Information as to charges will be found printed on the back of every form. If more money is sent than required, the balance is immediately returned through the Treasurer of the Association.

REGISTRATIONS cannot be made at membership rates until the membership fee for current year is paid. Membership fee to any of the Record Associations may be sent to the Record Office, payable to "Accountant," as above. Annual fees are due on January 1st of each year.

APPLICATIONS must be made on the forms supplied and must be signed by

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First in junior yearling class at Toronto 1906. Now heading W. H. English's herd, Harding, Man.

mixture. This undoubtedly gives the greatest strength for material used.

A very common method, however, is to mix all three parts at one time while yet dry, and then to mix with water until the mixture will pack well and handle with a shovel.

Get the form walls rigid, and do not use lumber that is too dry, as it takes up moisture and changes its shape so as to injure the concrete in setting.

Do not allow concrete work to dry out fast, as cracks will appear. It should be protected from the sun for three to five days and sprinkled with water to insure even setting throughout the concrete.

In two weeks concrete gains strength sufficient for ordinary use, but sixty days should elapse before it is given a full load.

INSTRUCTIONS AS TO THE RECORDING OF PEDIGREED LIVE STOCK.

It is desired to give the best possible service to persons wishing to record pedigrees of purebred stock. If the regulations have been complied with when the application for registration is received, the work will be promptly done. In a very large number of cases, however, applications are made out incomplete, forwarded without sufficient fees or lacking in some other essential particular. In such cases the result is as unsatisfactory to the applicant as to the Record Office: time is lost in procuring certificates and additional correspondence is required

the breeder, except in cases where the applicant purchased the dam after being served and before giving birth to the animal the pedigree of which is to be recorded; the applicant then signs, but transfer must be supplied signed by the breeder and giving information as to service and date of purchase. The application forms show when the signature of owner of service sire is required. Special attention should be given to see that the registration number of sire and dam (in case of Shorthorn females, volume and page) are given correctly. Applications must be written plainly in ink. In cases where any person other than as stated above signs, explanation must be given as to the authority for such signature. Where other names than that of the breeder appear on the application it is impossible to tell from whom it comes. A letter must be enclosed stating the name of the applicant.

It is necessary to transfer all dams from their recorded to their present owners before progeny may be put on record.

THE BREEDER of an animal is the owner of the dam at the time of service. APPLICATION FORMS for all breeds and addressed envelopes will be sent free on request. These addressed envelopes do not require postage.

It is desirable that all names be short, not more than eighteen letters.

Address all correspondence as follows:—"Accountant," National Live Stock Records, Department of Agriculture, Ottawa.

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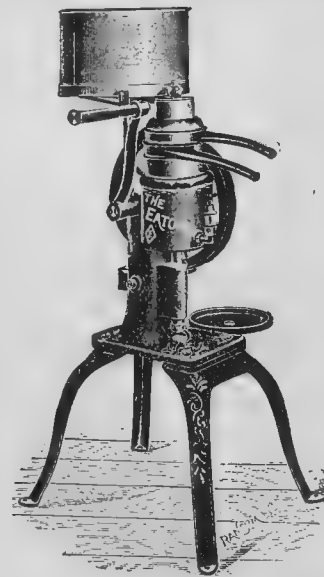
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430 ACRES FARM for sale—All workable. 260 acres under cultivation; 60 acres with excellent bush. Farm well watered with never failing stream; All buildings, new and up-to-date. Schoolhouse on place. Farm 1 1/2 miles from Goldenstream station, C.N.R. Write at once for price and terms. Address, Box 22, Gladstone. 10-7

ON CROP PAYMENTS—200 deep soil farms for sale on crop payments. These farms are ready for the breaker, and close to Yorkton, Saltcoats, Rokeby and Wallace, Saskatchewan, and Reston, Manitoba. First payment after you sell the first crop. Apply now, James Armstrong, 4 East Richmond St., Toronto. 10-7

FOR SALE—British Columbia. Ranches, farms and fruit lands adjoining city of Kamloops; blocks of ten acres up; river frontage; produces peaches, apricots, plums, grapes, melons, tomatoes, which never fail to ripen; unlimited markets; terms easy. Apply Strutt and Nash, Kamloops, B. C. 21-8

BELLEVUE YORKSHIRES—Over 100 head of spring pigs on hand. See previous issues for breeding, etc. Nothing pays better than good stock, well looked after. — Oliver King, Wawanesa, Man. T.F.

CHOICE COLLIE PUPS, will make good cattle dogs. W. H. Perry, Cochrane, Alta. 3-7

BULL FOR SALE Shorthorn, 4 years old. Sired by Scottish Canadian, dam Charity 2nd. Very sure. Ed. Oatway, Lillyfield, Man. 3-7

POULTRY and EGGS

Rates—Two cents per word each insertion. Cash with order. No advertisement taken under fifty cents.

W. C. TAYLOR, Dominion City—Barred Plymouth Rocks, Buff Cochins, Black-breasted Red Game, Eggs for setting.

EGGS for hatching from purebred Barred and White Rocks. Eggs 6 cents each.—Thomas Common, Hazel Cliffe, Sask. B-7

AT MAW'S Poultry Farm, Parkdale Post Office, near Winnipeg. Acclimatized utility breeds—turkeys, geese, ducks, chickens, incubators and poultry supplies. Large catalog mailed free.

ADDRESS YOUR CORRESPONDENCE to the Eden Rest Poultry Farms, P. O. Box 333, Lethbridge, Alberta, when you want eggs for hatching from pure bred, barred white and Buff Rocks, White and Buff Wyandottes, S. C. White and Brown Leghorns and Buff Orpingtons. Eggs \$1.50 per setting. B. J. Cook, Mgr. 26-6

H. E. HALL, Headingly, Man. Pure-bred Barred Rock Eggs for sale. \$1.50 for 15. Incubator lots, \$7.00 per 100 eggs. 26-6

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

W. F. SCARTH & SON'S S. C. Buff Orpingtons. Eggs from carefully selected hens mated with first prize cock, Manitoba Poultry Show, 1907, \$2.00 per 13. Box 706, Poulton

CHOICE SINGLE COMB Snow-white Leghorn eggs from carefully selected pens of choicest matings. Bred for heavy layers and typical beauty. Testimonials report excellent hatches. Selected eggs reduced to \$1.50 per setting. Good hatch guaranteed. Orders filled promptly. Honest dealings. G. Norman Shields, 29 Close Ave., Toronto, Ont. 22-9

BARRED ROCK Eggs from carefully selected pens of choicest matings. Leading strains of America. Selected for their choice barring and heavy laying of large brown eggs, and headed by cockerels, vigorous, blocky, and beautifully barred. I expect grand results from my Barred Rocks this season. Testimonials report excellent hatches. Eggs carefully selected from choicest matings reduced to \$1 per setting or \$1.50 per two settings. Good hatch guaranteed. Orders filled promptly. Honest dealings. G. Norman Shields, 29 Close Ave., Toronto, Ont. t 22-9

IF YOU ARE in need of anything search the advertising columns. You will find it in the FARMER'S ADVOCATE.

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the FARMER'S ADVOCATE, each of whom is entitled to one free insertion of a notice not exceeding five lines. Notices exceeding five lines will be charged two cents per word for each additional word, payable in advance.

ESTRAY.

Estrayed from Sec. 25, Tn. 11, R. 23, W. 2nd Mer.: two bay three-year-old mares, branded FT on left shoulder and FT on left flank. Notify H. M. Cathro, New Warren, Sask.

ESTRAY

\$25.00 REWARD—For information leading to the recovery of a pair of mares strayed from the premises of the undersigned on or about May 25th. One is a light bay and the other a chestnut, about 14 1/2 hands, 900 lbs. each. Supposed to have gone south from Strathcona. J. C. Johnson, P.O. Box 155, Edmonton, Alta. 3-7

Breeders' Directory

Breeders name, post-office address, class of stock kept, will be inserted under this heading at \$4.00 per line per year. Terms cash strictly in advance. No card to be less than two lines or more than three lines.

POPLAR GROVE HEREFORDS, A number of young cows, heifers, and bulls now for sale from this famous herd at low prices. J. E. Marples, Deleau, Man. Buff Orpington Eggs.

A. & J. MORRISON, Glen Ross Farm, Homewood Man., Clydesdales and Shorthorns.

JAMES WILSON, Grand View Stock Farm Innisfail, Alta.,—Breeder of Shorthorns.

H. H. KEYS, Pense, Sask.—Aberdeen Angus Cattle and Buff Orpington Chickens for sale.

GUS. WIGHT, Napinka, Man.—Clydesdales and Shorthorns for sale. Evergreen Stock Farm

WA-WA-DELL FARM—Leicester sheep and Shorthorn Cattle. A. I. Mackay, Macdonald Man.

O. KING, Wawanesa, Man.—Breeder of Yorkshires, Barred and white Rock Powl and Toulouse geese.

MERRYFIELD FARM, Fairville, Thos. Brooke, breeder of Clydesdales and Shorthorns. Box 131 Pense Sask.

CLYDESDALES, Shorthorns and Tamworths. T. E. M. Banting & Sons, Banting, P. O. Man. Phone 85, Wawanesa. Exchange.

STRONSA STOCK FARM—Well bred and carefully selected Shorthorns and Berkshires. David Allison, Roland, Man.

SHETLAND PONIES and Hereford Cattle, finest in Canada. Write or come and see them. J. E. Marples, Poplar Grove Farm, Deleau, Man.

JOHN GARDHOUSE & SONS, Highfield P. O., Ont.—Breeders of Scotch and Scotch-Topped Shorthorns, Lincoln and Leicester sheep and Shire horses.

R. A. & J. A. WATT, Salem, Elora Station, G. & C. I. R. R.—Champion herd at Toronto and New York State fairs, 1906, also Grand Champion females, including both Senior and Junior Honors at both fairs. Write you want.

BROWNE BROS., Ellisboro, Assa.—Breeders of Polled Angus cattle and Berkshire swine Stock of both for sale.

ASHCROFT, W. H. NESBITT, Roland, Mar.: Clyde and Hackney mares and Stallions, work horses in car lots, Ayrshires. Our motto, Live and let Live.

BERKSHIRES—Gold Medal Herd, Neepawa Manitoba. Address, J. A. McGill.

WOODMERE FARM—Clydesdales, Shorthorns and Yorkshires. Pigs at 8 weeks, f. o. b. Neepawa, \$8 apiece. S. Benson

GEORGE LITTLE, Neepawa, Man.—Shorthorns of best Scotch type.

IF YOU ARE in need of anything search the advertising columns. You will find it in the FARMER'S ADVOCATE.

THE BIG HACKNEY SALE.

Apart from the larger shows the leading event in horse circles this season is the sale of purebred and grade Hackneys at Rawlinson's ranch, 11 miles from Calgary, on July 24th. This is the largest stud of Hackneys in Canada and has produced more sensational show-yard winners than any other harness horse breeding establishment on the continent. Hackneys seem to be peculiarly adapted to the environments of the Calgary district and Messrs. Rawlinson have been exceptionally fortunate in their selections of breeding stock. Their first big strike was in their choice of Robin Adair 3907, bred by John Lett, York, Eng. and used for ten years in the stud. In 1901 he was champion stallion in New York and first and reserve champion in 1902. He was also sire of the great winner Robin Adair II, and of the champions Saxon, Pricilla and Minona. Many of the lots offered in the sale are by Robin Adair; others are imported and by False Heir (imp.), Commodore (imp.), Puritan (imp.), Black Doctor (imp.), etc. Eighty-five lots offered are purebred and the remainder of the 159 are grade Hackneys, among which are to be found the potentialities of horse show champions.

The stallions offered are Commodore (imp.), 6695 foaled in 1897, sire Chocolate, dam Affable. Chocolate was sired by Rufus, the sire of Robin Adair, and by using Commodore upon many of the Robin Adair mares, the blood has been concentrated in a serviceable, fashionable type of horse. Commodore is a thick stocky horse and has been an impressive sire. Another imported stallion is Flashlight a two-year-old chestnut, bred by Sir Gilbert Greenall, sire Goldfinder 6th, by Danegelt with dam by Denmark. On his dam's side Flashlight has Fireaway for a grandsire, thus combining the Denmark-Fireaway blood, a very much esteemed cross. Flashlight through his dam is half brother to Clifton, the champion at the Royal in 1895 and at New York in '96 and '97. Three Commodore stallions are offered for sale. Golden Hope, a brown three-year-old, out of a Robin Adair mare is one. Drake, a two-year-old chestnut out of Florence, a Robin Adair mare and full sister to Minona, the highest priced mare, \$1,625, at Senator Beith's sale in 1905, and the yearling stallion Bunch Grass, dam Thelma, a full sister to the champion Saxon.

The five imported mares are beauties. They are Steeton by Nil Desperandum 2nd, Timber Pride by Charlev Merrvlegs 3rd (this is the dam of Saxon); Terrington Lilv by Goldfinder 6th, Caxtonious by Caxton and Terrington Accident by Goldfinder.

To review the many Canadian-bred fillies offered would take more space than we have for the purpose. Suffice it to say they are a hardy stylish lot, with good control of their legs, having spent all their lives on the range and developed strong bone and muscles.

Catalogs of the sale will be sent to enquiring parties mentioning this paper.

W. H. Bryce of "Doune Lodge," Arcola, reports that up to the 1st of June his mares have dropped 10 foals, 9 of which are studs. In three years these will help to supply the demand for the best stallions.

Wingold Pure Paints

Only \$1.45 per gallon
GUARANTEED 100% PURE



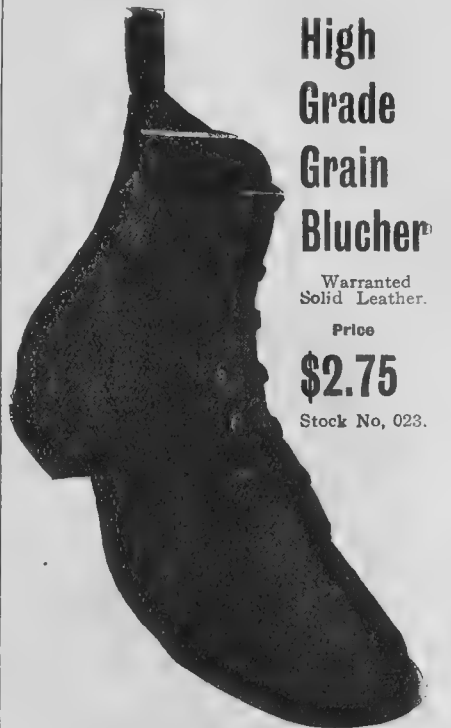
Wingold Ready Mixed House Paints wear longer, look nicer, cover more surface to the gallon, than any other paint made.

DON'T PAY TWO PRICES and get inferior paint in the bargain, but write us, saying, send me color card and cost of freight to my station, and you will receive by return mail a Handsome Color Card showing all of this season's Most Popular Shades, together with Suggestions How to Paint. 80 CENTS per gallon saved by buying Wingold Pure Paints. Every gallon guaranteed to give satisfaction or money refunded. Write to-day for Lowest Wholesale Price on Linseed Oil, X Varnish and Paints of all kinds.

DEPT. F. A.

WINGOLD STOVE COMPY., Ltd.

235 Notre Dame Avenue, WINNIPEG



High
Grade
Grain
Blucher

Warranted
Solid Leather.

Price

\$2.75

Stock No. 023.

Save Your Repairing Bill. Buy the Best. If Amherst make is not sold in your town write

E. J. BLAQUIER, Box 683, Brandon, Man. If sent by parcel post 50c. extra.

Cream Separators AT Half Price

We wish all who need a Cream Separator to read the following letter, which speaks for itself: Locksley, Ont., May 11, '07 Windsor Supply Co., Windsor, Ont.:

Dear Sirs,—Please find enclosed the sum of 30c., for which send me India-rubber rings No. 47 for bowl top No. 2 Windsor Cream Separator.

My separator has been in use for four years, and still gives as good satisfaction as it did the first day we used it.

Yours truly, T. HAMILTON,

N. B.—Please send catalogue of Threshermen's Supplies for 1907. T. H.

We receive scores of letters like the above from all parts of the Dominion. Send for circular, giving full particulars, by return mail. All orders filled the day received. Our prices are as follows:

No. 0.	cap. 100 lbs. milk per hour,	\$15.00
No. 1.	cap. 210 lbs. milk per hour,	25.00
No. 2.	cap. 340 lbs. milk per hour,	35.00
No. 3.	cap. 560 lbs. milk per hour,	45.00

Every Separator guaranteed, and one week's FREE TRIAL given.

Write to-day for Illustrated Circular and Catalogue, showing Home Repairing Outfit, Farmers' Handy Forge, Spraying Pumps, and 1000 other things every farmer and dairyman needs Address—

Windsor Supply Co., Windsor, Ont.

We Do Job Printing

Right on Time Right on Quality
Right on Price

Farmer's Advocate of Winnipeg, Limited



NOTICE is hereby given that by Order in Council dated 10th June, 1907, that portion of the Provinces of Alberta and Saskatchewan bounded by the International Boundary, the Rocky Mountains and a line drawn from the Rocky Mountains along the Northern boundary of the Stoney Indian Reserve to the line between ranges 5 and 6 west of the 5th meridian, thence north along that line to the line between townships 28 and 29, thence east along that line to the line of the Calgary and Edmonton Railway, thence north along the Calgary and Edmonton Railway to the line between townships 30 and 31, thence east along that line to the line between ranges 26 and 27 west of the 4th principal meridian, thence north along that line to the line between townships 34 and 35, thence east along that line to the Red Deer River, thence north along the Red Deer River to the line between townships 38 and 39, thence east along that line to the 4th principal meridian, thence south along the 4th principal meridian to the Red Deer River, thence along the Red Deer and Saskatchewan Rivers to the line between ranges 7 and 8 west of the 3rd meridian, thence south along that line to the line between townships 10 and 11, thence east along that line to the line between ranges 20 and 21 west of the 2nd meridian, thence south to the International Boundary line, is declared to be infected with Mange.

It is further provided, that all cattle within the said area are to be treated for the said disease between June 1st and August 15th, 1907, subject to certain limitations and provisions which, together with all other details, are set forth on posters issued by this Department and circulated throughout the above-mentioned area.

Copies of the poster in question will be furnished on application to the nearest detachment of the Royal North West Mounted Police, or to the undersigned.

J. G. RUTHERFORD,
Veterinary Director General.

Department of Agriculture, Ottawa.

MONEY SAVED!

A SAVING OF

25c to 50c on the \$
CAN BE MADE ON
Your Grocery, Clothing

Dry Goods and Shoe Bills

BY DEALING WITH US

**ALL GOODS ARE QUOTED
EXPRESS or FREIGHT PREPAID**

We Pay Freight to any railway station in Western Ontario, Manitoba, Saskatchewan, Alberta and British Columbia.

Write for Our Latest Price List, it is mailed free on request.

We only handle the best goods money can buy, only goods of best mills, manufacturers and packers shipped.

We Make Prompt Shipments.

We Absolutely Guarantee Satisfaction and Delivery.

All Goods Guaranteed or Money Refunded.

It is a duty to You, to Your Family and to your Pocket Book to investigate our prices.

We do not belong to the Jobbers' or Retailers' guild or association or any trust

References: Any Bank, Railway or Express Company in the City, or the names of twenty thousand satisfied patrons in the four provinces.

Write for our Price List To-day.

Northwestern Supply House

259 & 261 Stanley St.

Winnipeg - Manitoba.

Kootenay Fruit Lands!

Best in the World!

Write me for information. I know all about the land situation here, having been in business in Nelson twelve years.

S. M. BRYDGES, Nelson, B.C.

Brydges, Blakemore & Cameron, Ltd.

EARNINGS OF BANKS.

The following statement shows the earnings of the principal Canadian banks that have recently given out figures:

Banks.	Profits 1906	Per cent earned on cap.
Montreal.....	\$1,797,976	12.55
Commerce.....	1,741,125	17.40
Merchants.....	740,398	12.34
Imperial.....	535,786	17.60
Dominion.....	269,704	17.98
Toronto.....	544,295	14.69
Molsons.....	434,668	14.46
Union.....	452,930	12.58
Ottawa.....	425,238	14.20
Hamilton.....	371,251	15.06
Eastern Townships...	279,610	10.10
Traders.....	396,231	13.21
Quebec.....	295,036	11.08
Standard.....	175,652	17.54
Union of Halifax.....	168,151	12.58
Nationale.....	195,753	13.05
Sovereign.....	187,467	11.00
Hechelaga.....	317,504	17.30
British North America	*345,695	13.82

*Six Months.

THE GAITS OF THE AMERICAN SADDLER.

A subscriber desires to know "the gaits that it takes to constitute a saddle horse, and the difference between the rack and the single-foot."

Any horse that wears pigskin and carries a rider is a saddle horse. The gaits do not make a saddle horse. If he carries weight, that is, if he allows a man to ride him, he is a saddle horse in the broad sense of the term. But there are different kinds of saddle horses, and they are classified in part at least by their gaits. The three natural gaits of a horse are the walk, trot and gallop or run. Artificially, that is by education, the gallop is made into a canter, which is a gait performed by practically the same movement of the legs, but slower, more restrained and easier to ride. We then have one kind of a saddle horse called the walk-trot-canter or plain-gaited horse. This horse suits a lot of people primarily because they do not know any other gait; secondarily because they are imitators of the English fashion of riding, and lastly, and leastly, because they do not like other educated and easier gaits.

These easier gaits are the running walk and the rack. The latter is also called single-foot, inasmuch as in this gait each foot has a separate contact on the ground, no two of them striking it at the same time, as in the trot and pace. The running walk is called a slow gait, and there are two other gaits allied to it, the slow pace and the fox-trot. The name running walk defines the gait accurately, and at once identifies it to the understanding. It is faster than a flat-foot walk, and is produced by a movement of the legs more rapid than in a walk, but in about the same rhythm. That is, each foot strikes the ground independently of the other. Most horses going the running walk bob or nod their heads and some of them even flop their ears in rhythm with their footfalls. It is an all-day gait, easy alike to the horse and the rider and it covers ground at an astonishing fashion for its apparent speed. It is taught by urging a horse out of the walk, but restraining him from a trot. The slow pace is a somewhat sinular movement, but borders more on the sidewheel gait or lateral pace, in which the two feet on one side of a horse strike the ground at the same instant. The true pace, however, is in no sense a saddle gait. It is rough and uncomfortable. A rider can not rise to it and save himself, as in a trot, and it is positively the worst gait a saddle horse can possess. In the slow pace this side-wheel motion is slightly modified, so that the impact on the ground of the two feet on a side is broken, thus avoiding the rolling motion of the true pace. The slow gait is a very comfortable gait, and is very showy, especially when a horse throws just a little knee action into it. It has grown common in the show-ring during recent years, as saddle horse trainers appreciate its catchy qualities and endeavor to teach their horses to go this gait. The best saddle horse men, however, do not look on it with favor, as it is so easily corrupted into the abominable side-wheel pace, which ruins a horse for comfortable and satisfactory work. Unless a rider is careful his mount may almost imperceptibly degenerate from a distinct

FREE ON REQUEST

A short instructive leaflet on the subject of Life Insurance will be mailed to any address on request. The leaflet comments upon the many benefits of Life Insurance, and tells of a Policy under which the insured may not only protect dependent ones, but provide for his own future, and this at a cost remarkably low.

The Great-West Policies are known for low rates, liberal conditions, and high profit returns to Policyholders.

Ask for a copy of the leaflet. It is well worth reading, even if you have no immediate intention of taking out Insurance. State age next birthday.

THE GREAT-WEST LIFE ASSURANCE CO.

Head Office - - WINNIPEG

WINNIPEG FAIR

July 13th to 20th, 1907

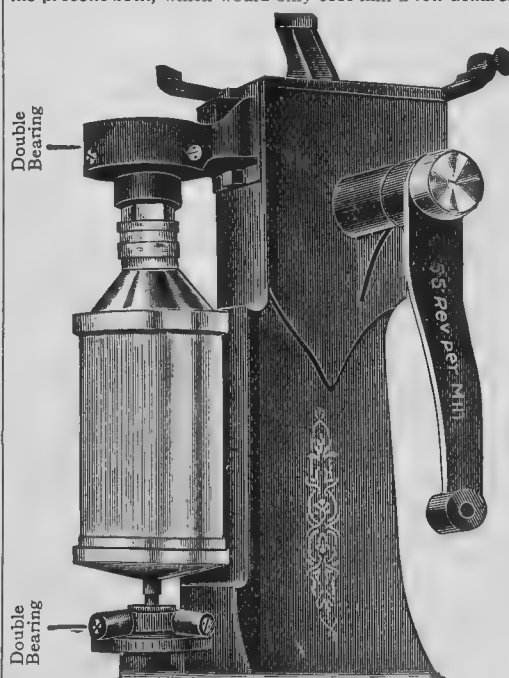
Exhibitors are reminded that the entries for Live Stock Close July 1st, Races July 2nd.

GEO. H. GREIG,
President.

A. W. BELL,
Manager and Secretary.

SAVED \$55.00

A MAGNET user wrote us that he wanted to get a larger size owing to the increased number of cows in his dairy. We informed him that he did not require to change his machine, that his present one would do, and that we could increase the capacity by changing the skimming device in his present bowl, which would only cost him a few dollars.



WE made the change and after a full trial he writes us:—"I am more pleased than ever with my MAGNET, it skims the increased quantity, turning as easy as it did before, and cost me just \$55.00 less than my neighbor paid for exchanging his small machine for a larger one. Of course his was not a MAGNET and the whole machine had to be changed."

C. C. Diefenbacher of Hawkesville, Ont., writes us on June 6th, 1907.

"I have used a MAGNET in my dairy over eight years. Never missed a skimming and no cost for repairs. Takes all the butter-fat out and turns easy. I like the double support to the bowl. The square gear suits me, would not buy a worm gear machine at any price."

"Desiring to get a larger machine, I was glad to find it was not necessary to get a new machine, and that I could get the capacity of the present MAGNET increased at the cost of a few dollars, which I have done, and it is working fine."

Remember the MAGNET Cream Separator will not wear out in fifty years' use.

Write for 1907 Catalog.

The Petrie Manufacturing Company, Limited

HAMILTON, Ont.

WINNIPEG, Man.

ST. JOHN, N.B.

Western Distributing Points

REGINA Sask.

CALGARY, Alta.

VANCOUVER, B. C.

VICTORIA, B. C.



GRAIN CONSIGNMENTS

GRAIN GROWERS

YOU WILL RECEIVE
Large Advances and Top Prices
By Sending your Shipping Bills to
SIMPSON-HEPWORTH CO. LTD.
520 ASHDOWN BLOCK, WINNIPEG

Box 470

Frank G. Simpson.
A.T. Hepworth.

RESUMPTION

between Winnipeg and Port
Arthur of

The Superior Express

(Daily)
Lv. Winnipeg 16.10k
Ar. Port Arthur 9.37k
Lv. Port Arthur ... 21.20k
Ar. Winnipeg 15.00k

The Alberta Express

is the crack train between Winni-
peg and Edmonton.

(Daily)
Lv. Winnipeg 19.00k
Ar. Edmonton 6.15k
Lv. Edmonton 21.10k
Ar. Winnipeg 10.25k
Second Morning

These two fast and comfortable trains make connection in Winnipeg. Through Sleeping Car between Edmonton and Port Arthur. Dining Car service unexcelled. Connection at Port Arthur with Lake Steamers for the East.

REDUCED SUMMER TOURIST RATES

to many Eastern destinations, particulars of which any Agent will be pleased to furnish, or write



C. W. COOPER

Asst. Gen. Pass. Agt.

Can. Nor. Ry.,

Winnipeg.

and correct slow pace into a plainly-defined pace and then there is sure enough trouble. The fox trot is a slow trot or a jog trot. It is a rather peculiar gait and not so desirable as the running walk or the slow pace. Some horses cannot acquire either of these two gaits and so their trainers pull them down into a very slow trot and seek to pass that gait off as a fox-trot. It is a broken time gait in a measure, somewhat easier than a pure trot and when cleanly performed it will answer as a business gait.

The trot is the diagonal gait. The off foot and the near hind foot strike the ground at the same instant and the bounds off them to hit the ground again with the near fore and the off hind. This gives a two-beat gait. The impact of the feet on the ground is one, two, one, two. The pace is the lateral gait. The off fore and the off hind foot hit the ground at the same interval, and the other pair on the near side follow. This is also a two-beat gait. The rack is a four-beat gait. Each foot hits the ground at a separate interval in a one, two, three, four beat. The rack can be distinguished by ear as far as the foot-falls of the horse may be heard; each foot rings clear its own note on the hard ground. In teaching the rack the horse is forced forward by the spur and restrained by the curb. His diagonal gait is thereby broken up and he flies into a four-beat gait. The rack is easy for the rider, hard for the horse. It is a showy gait and is performed at great speed sometimes. The trainer who has a fast-racking horse will generally keep him on that gait when in the show-ring, hoping to dazzle the judges by the flashiness of the performance. Unfortunately this trick succeeds many times, as some judges are too ignorant or too unbalanced to demand the other requisites of a saddle horse. Many a horse has racked his way to fame through the connivance of half-baked judges who proceed in the apparent belief that the rack is the only accomplishment demanded of a saddle horse. This gait has been officially named the rack by the American Saddle Horse Breeders' Association, and hence the name single-foot should not be used, as it merely leads to confusion among the uninformed.

The five gaits recognized by that association are the walk, trot, canter, rack, and the running walk, or slow pace, or fox trot. Either one of these three slow gaits will answer. Some horses can only go one of them, some can show them all. When a horse can show these five gaits he is called a gaited horse.

Saddle horses are differentiated by their gaits into two classes—the walk-trot-canter horse and the gaited horse. The gaited horse can do all that the walk-trot horse can do and more. Therefore he is the more useful and the more valuable.

WHY NOT HOME WATERWORKS?

The new system of underground "air pressure" water tanks for farms and villages promises to revolutionize that class of homes as much as did the wire fence telephone, as it gives to the farmers all the water privileges enjoyed by their city cousins. With an outlay of from \$40 to \$100 everyone in the country may have water "under pressure," for bath-room, closet, kitchen, sink, stock drinking tanks, lawn sprinkling, and last but not least, for fire protection. The principle involved in this new luxury is as old as the "penstock" of 1840 by which our grandfathers conveyed water from the spring on the hillside to the watering trough at the house through hollow logs. The wind-mill or gasoline engine now takes the place of the hillside spring; iron pipes displace the wooden logs, and the faucet holds the water in reserve until it is needed. Science has, however, added a new feature, viz., the air-tight, underground iron tank, either new or second hand; into this, from the under side, the water is forced by the wind-mill until the air is compressed into one-half its normal volume. This furnishes a pressure of the "holly" or elevated tank. Again, from the under side of this iron tank, the water is taken in iron pipes underground below frost, to the barn, kitchen, truck patch or through the



Oxydonor

Treats Life.

Plenty of Oxygen in the system, with oxygenated blood, means life. OXYDONOR causes the whole system to drink freely of oxygen from the air. OXYDONOR thus causes disease to disappear, by bracing the vital process. By the proper use of OXYDONOR at any reasonable hour, anyone can maintain maximum vigor and make disease a mere inconvenience of short duration.

Thousands of men and women are today enjoying independence from medication and disease, by having in their own hands the means of curing themselves of all ills.

Mrs. CLARK, 28 Argyle St., Toronto, Ont., writes: "I cannot speak too highly of your Oxydonor No. 2. Through the advice of a friend I purchased one. After undergoing an operation for a cancerous growth on the uterus, it has strengthened me wonderfully. It has also scattered varicose veins which I have had very bad for many years; my legs are better now at the age of fifty-four than they have been for twenty years."

OXYDONOR may be carried in the pocket and used at any time without delay, but is usually applied while you sleep. Write for our descriptive books, mailed you without cost.

Beware of fraudulent imitations. There is but one genuine OXYDONOR, and that has the name of the original and inventor—Dr. H. Sanche—engraved in the metal.



Dr. H. Sanche & Co.
358 St. Catherine St. West,
MONTREAL. 17
61 Fifth Ave. Detroit,
Mich.

Splendid Gains in 1906 for



Gains were made in every department
of this Company.

Here are the figures:—

Gains in Income	\$ 115,904.22
Gains in Assets	1,089,447.69
Gains in Surplus	251,377.46
Gains in Insurance	2,712,453.00

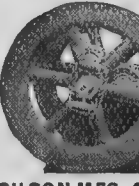
And remember, please, that all these increases were made at an actual saving of \$10,224.36 in expenses as compared with the previous year.

Could anything reflect greater credit on the business sagacity—the sound judgment—and the ever-watchful care of the policy-holders' interests—by the Officials of the Company?

Write for free copy of the Annual Statement and other interesting matter in regard to insurance, to any of the Company's Agents, or to

Head Office, Waterloo, Ont.

P. D. MCKINNON, Provincial Manager,
WINNIPEG



GOES LIKE SIXTY.
SELLS LIKE SIXTY.
SELLS FOR SIXTY.

\$65

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GASOLINE
ENGINE

For Pumping, Cream
Separators, Churns, Wash Ma-
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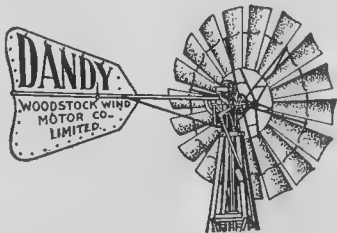
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fire hose to the top of the house. Any plumber who can cut a thread or wipe a joint is capable of fitting up a practical plant of this kind. Indeed, if the plumbers are awake to their opportunities they will find an unlimited amount of this kind of work, as every man who owns a wind-mill must soon see the advantage of this plan over that of the open trough or elevated tank. The material and labor needed to carry the water a hundred feet from the wind-mill into the house should not cost over \$100. It consists of a one-inch galvanized pipe, a plain ordinary "cut-off," and iron boiler of any size, the dimensions of which must depend upon the size of the pocket-book. A small one will act as perfectly as a larger one will; the only advantage the latter has over the former is that

"When the winds blow"—(not)
"The water will flow"—(still)

Supposing the wind-mill is in operation, a hundred feet of iron pipe should not cost to exceed \$16; the boiler, 2x7, capable of sustaining a pressure of one hundred pounds per square inch should not cost more than \$46, an automatic cut-off \$15; four faucets \$5; a steam water-gauge to register the pressure, \$16; the labor of digging should be but little and a plumber's time may cost \$12, making a total of \$110, which will add to the convenience and protection of the home more than a like amount expended in almost any other direction. There is no good reason why every wind-mill owner should not enjoy this luxury. At some later date I will explain how the hand force-pump proposition will give a constant and even pressure of water from the cistern when forced through an air-tight chamber to different parts of the house or barn. So far as I know there is no patent to bar anyone from using this greatest of blessings—free water.

C. D. SKINNER.

[These figures are rather below what the same things would cost in Western Canada.—Ed.]

THE LAYING OUT OF A RACE TRACK.

Occasionally an agricultural society decides to lay out a track for speeding contests. The following are some of the most widely known and simple rules, the first lot dealing with the actual measurements themselves alone and the last with the area required as well as a different method of laying off a mile course.

For a third-of-a-mile track: The usual rule for half-mile tracks is to have the stretches and turns of equal length. If the same rule is observed in laying out a third-of-a-mile track, each stretch and turn should measure 440 feet. Therefore, two stakes should be driven where one of the stretches is proposed to be located, 440 feet apart. The opposite stretch then should be staked out parallel to the first and 274 feet across at either end. A wire 237 feet in length should be made fast to a post placed equally distant from the end of either stretch, and the turns staked as directed in laying out other tracks. The wire should be accurately measured, which may best be done with a long steel tape measure. Sufficient length should be allowed so that several turns may be made around a stick at the end, and also a loop to slip over a spike to be driven in the upper end of the turning stake. One end of the wire should be taken and placed upon the stake at the end of the stretch, while an assistant with the other end proceeds toward the end of the opposite stretch. When the wire has been tightly drawn, the turning stake should be located in exact line with the stakes at the end of the stretches and firmly guyed in every direction. After the circuit has been made and the stakes driven for the turn, the novice will probably be surprised to find the wire is from six to eighteen inches too long from stretching. If this should be the case, it should be shortened so that it will exactly reach the stake at the end of the stretch, and the turn corrected. After the track is laid out it should always be carefully measured three feet from the stakes before construction is commenced. If this is done with a chain it will be found



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necessary to have as many as three assistants to make sure that the chain follows the curve at the turns.

For a half-mile track draw the parallel lines 600 feet long and 452 feet five inches apart. Half way between the extreme ends of the two parallel lines drive a stake, then loop a wire around the stake long enough to reach to either side. Then make a true curve with the wire, putting down a stake as often as a fence-post is needed. When this operation is finished at both ends of the 600-foot parallel lines, the track is laid out. The inside fence will rest exactly on the line drawn, but track must measure a half-mile three feet from the fence. The turns should be thrown up an inch to the foot. The stretches may be anywhere from forty-five to sixty feet.

For a mile track draw a line through an oblong center 440 yards in length, setting a stake at each end. Then draw a line on either side of the first line, exactly parallel with and 417 feet two inches from it, setting stakes at either end of them. You will then have an oblong tract 440 yards long and 834 feet two inches wide. At each end of these three lines you will now set stakes. Now fasten a cord or wire 417 feet two inches long to the center stake of your parallelogram, and then describe a half circle, driving stakes as often as you wish to set a fence-post. When the circle is made at both ends of your parallelogram, you will have two straight sides and two circles which, measured three feet from the fence, will be exactly a mile. The turns should be thrown up an inch to the foot.

Touching the acreage required and another way to lay out a mile course, here are rules that will be found useful: "As to the necessary acreage, this must entirely depend on the surroundings desired. To merely contain a mile track sixty feet wide, a pace 759 yards long by 319 yards wide is necessary. The area of this will exceed fifty acres by only 121 square yards. Having laid out a parallelogram of the above dimensions, bisect it longitudinally, and twenty yards eighteen inches from each end of the dividing line drive stakes 139 yards back of these stakes drive others. Between the latter you will have a base line exactly a quarter of a mile long. On each side of this at a distance of 139 yards draw lines parallel to it and the same length.

"Now attach a cord, or, better still, a fine wire, as that is less liable to stretch, to the pegs at the ends of your central base line, and describe a semicircle from each, driving frequent stakes. If your measurements are accurate the tangents of these half circles will exactly coincide with the pegs set near the extremities of the dividing line, and the ends of the two lines equal and parallel to the base. If you place your inside fence on the outer side of these semicircles and the parallel lines they join, you will have a track exactly a mile around measuring three feet from the inside of the rail, while if you place your outer fence just inside the containing lines and semicircles drawn through the bisecting points from the ends of the base line, the radii of which will be 159½ yards, you will have a running ground a trifle over sixty feet wide. The turns on a track of this width may safely be thrown up a couple of feet.

"It may interest you to note that the area of the running ground you will have to care for on a track of such dimensions will be nearly eight acres. Each yard you increase the width of the track will add two-fifths of an acre to your task. To keep a strip twenty-five feet wide along the inner rail in order, you must till three acres. The area of your infield will be thirty-eight acres; in each corner you will have a vacant space exceeding an acre by 300 square yards."

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In the matter of public sanitation, the question of effectually disposing of sewage in small towns and villages is one of the most important problems that has engaged the attention of scientific men. The great cost of a sewage system as used in large places is rendered impracticable, while the use of privy pits and cess-pools has been found objectionable and dangerous. That there

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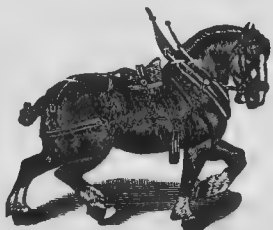
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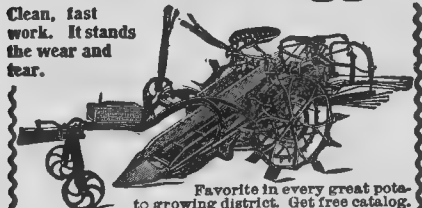
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is a desire on the part of those living in towns and villages, as well as in less populated districts, for what are known as the "modern conveniences" of the city, is evidenced by the thousands of cess-pools in existence or being built, for the purpose of hiding away far beneath the surface of the earth the various organic and liquid wastes from private residences, public houses or institutions, as the case may be.

1st. That the power of mischief possessed by sewerage placed beyond the action of bacteria, is enormous.

2nd. That the diffusibility of typhoid poison in water is practically infinite.

3rd. That water containing the germs of disease may not be purified by filtration through a mile of solid earth (a filter so fine as to arrest particles of wheat flour).

The moral to be drawn from the foregoing is that the greatest care should be exercised in the disposal of waste matters, and that under no circumstances should they be buried deeply under the surface of the earth.

The question will be asked, "How is decaying matter to be disposed of at the surface of the earth without creating a nuisance?" In answer to this question it may be said, that as far as it applies to the human excreta two methods have been found to work successfully, viz.: the dry earth closet, the contents of which are dug into shallow trenches at regular intervals; and the septic tank system, the latter being preferable, for the reason that while it performs all the work of the dry earth closet, it will also take care of the liquid wastes from the house, and it requires little attention, while the former depends for its success upon unremitting care.

A brief explanation of the construction and operation of the septic tank system will be of value to those who are anxious to have their premises in the best possible sanitary condition, and who are willing to go to a comparatively small amount of trouble to produce the desired results.

A tank constructed of brick or stone, well bedded in cement to prevent leakage, is built at such a level as to allow the discharge pipe, which is of glazed tile four inches in diameter, to leave it at a depth of not more than twelve inches beneath the surface of the earth. Where the surrounding land is level, this tank may be located close to the building too; if covered with earth (and sodded over if desired) it will not cause any inconvenience. If more convenient it may be placed any distance from the house and the inlet pipe laid along a mound or ridge of earth and covered with earth to protect it from the frost; this pipe must under any circumstances have a slight continuous fall from the building, too, and must enter the tank at the top. If, however, there is a considerable slope to the land, the tank may be buried beneath the surface, it being borne in mind that the branches of the pipe which may be taken off at any distance from the tank, must not be more than twelve inches beneath the surface and must be perfectly level. From the discharge pipe about every two feet, are run branches of field tile, four inches in diameter, the total contents of which should be equal to the amount of water which will be discharged at each operation of the valve, and allowing thirteen tiles to every cubic foot to be discharged, the number required will be readily found. The end connecting the tank to the system of sub-surface tiles should be of iron, solidly cemented into the bottom of the tank to allow the caulking of the valve with lead.

The valve described in this article, which is manufactured by the Dominion Flushing Valve Company, of Toronto, is the only thing of its kind which can be set at any level, will open and close automatically, and, as it needs no adjusting, it can be put in by almost any person.

The septic tank system has the endorsement of all scientific men who have given the subject of sewage disposal close study. We have secured a detailed account of the workings of this system which can be seen at this office by any who wish to see it.

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Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds and some that will produce prime steers. We have a bull catalog—send for one.

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Disappears

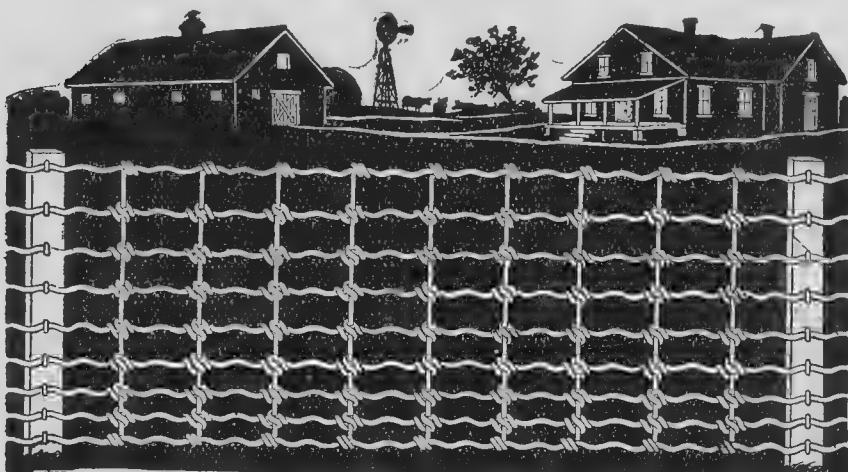
because this famous remedy goes directly to the seat of the trouble and passes it out of the system. Beecham's Pills are not a makeshift; they combine certain vegetable properties in exact proportions, which act gently on the stomach, liver and bowels and restore the natural functions of the body. They are as carefully compounded as a doctor's prescription and as standard as a gold dollar.

You can relieve sick headache, constipation, indigestion and sleeplessness

With a Dose or Two of

BEECHAM'S PILLS

Sold Everywhere in Boxes 25c



Take a Look at a Farm Fence Worth Building

Ideal is the recognized standard fence for Canadian Railways. Railroads build fences for permanence. Canadian farmers are buying more Ideal Fence to-day than any other make. They keep our two factories busy, turning out fence at the rate of 30 miles a day. You see this fence everywhere you go. You know there must be reasons. Just take a good look at it as shown above and read the argument for buying

IDEAL FENCE

Looks strong, doesn't it? It is strong. It's made to last. All made of No. 9 hard steel wires, both horizontals and uprights. Heaviest fence wires used. It adjusts itself in extremes of temperature. That's why Ideal fence always stands up erect. The lock which is used at every intersection of wires is shown in lower left hand corner. Neither climbing over nor horn, nor crowding, nor anything else can make the wires slip. It is not a fence that gets holes in so cattle and horses can poke their heads in and hogs root their way through. You can't tell about the galvanizing from looking at the picture but look at the fence itself for that. More heavily galvanized than any other. Easy to build, fits any surface, hilly or level

Is the Argument sound? People who have investigated it are buying it. Take a little time to think of the essentials of good fencing before you buy. The Ideal has all of them. We know you'll want Ideal when you know about it. Write for our book about fencing, FREE.

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BE CAREFUL OF DRINKING SLOUGH WATER.

Many a homesteader under stress of circumstances and hot weather drinks too heartily of slough water, which usually has a purgative action due to its alkaline contents. Against attacks of diarrhoea which are if long continued, especially in hot weather, so weakening, there should be kept on hand, some brandy and a bottle of Extract of Wild Strawberries. Many attacks will yield to a meal of flour boiled in milk. The following prescription has been recommended, but must be used carefully and according to the druggist's directions: Take Tc. Opii (laudanum), Tc. Rhei (rhubarb), Tc. Camph (Camphor) Tc. Capsici (capsicum), Tc. Menth. pip. (peppermint).

The above ingredients are to be put up in equal quantities. And the dose is ten to thirty drops as needed according to the severity of the attack, and can be graduated according to the severity of the attack. Twenty-five or fifty cents worth of the mixture will do some time.

THE SYMPTOMS OF RABIES IN DOGS

A dog about to become mad is "out of his natural sort." His character changes; his habits are anomalous; sometimes he is dull, sometimes restless, and at other times he is over-excited or over-affectionate. These manifestations may succeed each other in a manner to make the subject appear capricious.

These are already the symptoms of rabies, and the disease is already contagious, although the animal is not as yet ferocious, and has not lost its reason. The essential characteristic of its nature—its sentiment—is pathetic. It is still lively and far from malfaisant against familiar persons, and although it may sometimes suddenly become unintentionally treacherous, it often shows still more regard for its master's affections. Its lickings are already dangerous, because the saliva is now virulent and capable of inoculating the virus.

Rabies in the dog is not characterized by manifestations of furor and ferocity at the beginning. It is by unnoticeable transition that the patient arrives at the period of rabid frenzy, and as this is ignored by dog owners it should be thoroughly impressed upon them, for once anticipated the danger for them and others would be lessened by chaining up dogs on the appearance of the premonitory symptoms. Preventive captivity would prevent the contagion from being carried farther, as the affected animal could not then obey the instinct of always running away from its master's home.

At the first period, that is, the initial period, rabies is manifested by appearances of extreme benignness. The animal is not as yet aggressive and does not show any tendency to bite, but aims to isolate itself, preferring solitude and obscurity. It hides away in corners of the house, under furniture or in recesses of the kennel; sometimes for a long time it remains somnolent and inattentive and at other times in spite of its illness it is continually restless and agitated, in contrast to its usual habits, and thus attention attracts to the peculiar change in the disposition. In vulgar parlance "the appearance is strange." It will lie as if to sleep and then suddenly awaken, come and go from one side of the room to another, lie down as if to sleep again for several minutes, and so on throughout this period of the disease. It will scatter the litter about with its paws and then replace it into a heap, upon which it seems to enjoy reposing its breast, and then suddenly it arises to scatter everything about again. In the house it upsets cushions, turns up carpets and disarranges the bedding upon which it ordinarily sleeps. It can find no place of rest, comes and goes continually, makes an incessant noise with the claws, scratches the floor, smells about the corners and under the door as if in search of something lost. At this stage it is still attentive to its master's voice and will follow along with the same earnestness and above all with the same expression of the physiognomy. If the tail is wagged the movements are slow and feeble, the expression becomes somewhat strange, and soon the animal will not respond to the call, but will return to its solitude.

In this initial stage a certain aberration of the senses is already noticed, for

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The cheapest good shingle is the costless "Oshawa." Good for a century's weather-wear. Guaranteed for 25 years without your even painting—"Oshawa" double-galvanized shingles need no paint to outlast any roofing there is. Make roofs fire-proof, too,—guaranteed in every way you want. Cheap in first cost as common wood shingles, yet more durable than slate. Sold under a written guarantee that really means something to the buyer.

You can't
afford any
other kind



Easy to put on right with "Oshawa" Galvanized Steel Shingles. They need no cleats. They lock on all FOUR sides. Made in only one grade—of 28-gauge semi-hardened sheet steel in the patented "Oshawa" way



"Oshawa" Shingles are an investment, not an expense.

More than 100 farm buildings were damaged in Ontario alone last year by lightning. Not one of them would have been harmed if they'd been "Oshawa"-roofed. These shingles insulate a building—make it safe against every element. Let us tell you what it will cost you to roof the "Oshawa" way.

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Rebuilt Engines in all sizes.
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the victim, while sleeping, apparently has hallucinations. By and by it remains quiet, attentive, as if on guard, then suddenly sits on its haunches and snaps at the air as if attempting to catch a flying insect. Sometimes it will hurl itself against the wall as if it had heard menacing noises on the other side. But this instinct that causes it to snap at imaginary objects, to bark at itself or to thrust itself to the end of the chain, is not the ferocious instinct that appears later. The hearing is over-sensitive to the least noise, but is enfeebled during the hallucinations.

In some cases there is intense pain in the internal ear, or else an intense itching in that region. The victim is more affectionate than ordinarily, its instinct is augmented, and at certain moments it will approach its master as if pleading for relief from its suffering. This affection for its master is sometimes so manifest as to dominate the situation; even during the paroxysms which appear later, its master's voice may act as a calmer to the suffering animal; but to say that the master is in no danger at this stage is saying what is not true, because there are rabid dogs so unbalanced that they do not recognize their masters.

THE MAD DOG HAS NO DREAD OF WATER.

The rabid dog is not hydrophobic; it has no horror for water. As it is quite generally supposed that the disease does not exist in dogs that are seen to drink, many persons have slept in deluded security with their rabid pets. When a rabid dog is offered drink it does not retire in alarm; on the contrary, it will approach the vessel and lap it empty. It always swallows during the first stages of the disease, and until the constriction of the throat renders deglutition difficult. The attempts to drink are no fewer and the lappings are so much more repeated and prolonged that the animal dwells ineffectually in the act.

Rabid dogs are so little afraid of water that they will actually swim rivers.

Although the rabid dog may not refuse its food, and may sometimes even show a voracity that is quite unnatural, it may lose its appetite completely and withdraw from its allowance without tasting or even touching it. At other times it will eat a little and then reject the remainder by upsetting the pan, to its evident satisfaction. Finally, however, the appetite always becomes depraved to the extent of lapping its urine, its feces or the feces of man or of other animals. At the same time it will seize with the teeth, tear, crush and swallow all manner of objects—the litter of the kennel, the yarn of cushions, bed covers, carpets, curtains, slippers, chips of wood, thongs of leather, grass, earth, stones, glass and in fact everything it encounters. If tied in the kennel it will often attack the boards with such tenacity as to break its teeth.

Slobbering is not so abundant as the popular prejudice would have it, and it is an error to suppose that rabies does not exist in the absence of this symptom. The salivary secretion is ordinarily more abundant because of the irritation of the mouth provoked by the ingestion of foreign bodies.

THE BARK OF THE RABID DOG IS CHARACTERISTIC.

It is generally altered, and one familiar with its normal intonation can affirm that the dog is rabid. Commencing with a hoarse bark it terminates in to a very singular howl of five, six or eight tones, each more elevated than the other. During the howl the mouth does not completely close as in normal barking. One symptom, the most characteristic of all, is the impression made by the sight of an animal of its own species, which is frequently so pronounced as to immediately provoke a paroxysm.

A dog that remains mute, found roaming about in a strange locality without a master, should be held as a suspect, in spite of the danger in catching it; and one that persistently bites some parts of its body in spite of the pain thus inflicted, should likewise be held, pending developments. Often, at the beginning there is a nervous prurigo where the victim bites itself under the influence of unbearable itching. It is said that at the beginning of rabies the initial bite becomes the seat of an abnormal vascular activity and of a co-incident sensation of itching and pain.

Soon confirmed rabies appears. But

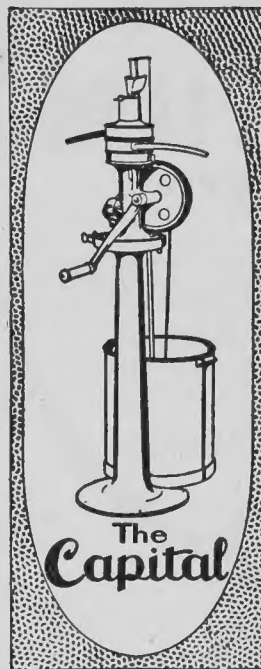
Four Cows Will Earn You MORE Money Than EIGHT Cows Earn You Now

Tell me to show you how to get over thirty dollars a year more out of each cow you keep. Make

me prove that four cows AND a Capital Separator will actually earn you —YOU, PERSONALLY—more money in cold cash profits than an EIGHT-cow herd and no Capital Separator. Don't take my say-so for it. Don't wrap yourself up in your own belief that it can't be done. It CAN be done, and I can PROVE it to you, in a practical, hard-sense fashion, with figures and facts that you won't want to dodge. Write to me and see.

Let's get the thing clear to start with. Here is what I say I can show you: That with four good cows and my method of separating, making butter—and selling butter—you can make more money in one year than eight cows will make you without my method.

If I do that,—if I do show you a difference of over thirty dollars profit a year on every cow you keep,—then I want to talk business with you. I don't want a cent of your money until you are satisfied that I have made good every word I say and everything I promise. I don't want to sell you a Capital Separator until you ask me to,—I shan't importune you, nor bother you. All I want to know is your name and address, and how many cows you keep. When I get these facts, I'll tell you some things you haven't heard before. I'll show you not only why you need a Capital Separator, but why you can make more money by my method of selling butter than you'll make any other way. It won't be all separator talk I'll talk to you,—you've read reams of separator argument, but you haven't heard yet about the right way to



make butter and the right way to SELL butter. Tell me to tell you about it,—there's nothing to pay.

Why don't I tell you right here in print? Simply because I am not giving "blanket" advice. What might be a good plan for a man in Ontario wouldn't work in Manitoba,—and I propose to advise each dairyman according to his location and other vital details. Naturally, I want to sell Capital Separators. I am no philanthropist. But I will sell them faster because I can tell people how to make them pay,—and that's something new in this business.

I don't care what your experience with dairying has been, nor what with separators. You may have what you think is the best separator there is. Or you may believe, as many do, that there isn't any real profit in dairy-farming. I can show you where you're wrong in either case. Do I get the chance to do that? Will you listen to the mere, sheer, downright facts? Just write to me and say so.

I don't care whether you feel able to buy a Capital Separator or not. It won't be a hard matter, once you get to the buying point, to make terms with me. Some of my friends—I don't consider them merely my customers—take three years' time to pay in. Some of them pay in three months. Doesn't make any difference to me, because I know, and I can prove to you, that my Separator will buy itself the first year you have it. It will save you enough money and trouble, to pay for itself twice over in that time. And I can prove that, too,—just write and ask me to.

I've got a machine here, and a method, that will open your eyes to what there really is in keeping cows for profit. Maybe you are one of the few that know that already. Even if you are, you won't be any the poorer for reading what I'll write you. Let me tell you about the easiest separator to run you ever saw,—the easiest to buy,—the separator that skims cleanest and does it easiest,—the one with the really-low-down can,—and about the method that makes more butter, makes better butter, and gets better prices for it the whole year round. Just write to me—address as follows:

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Importer and Breeder of Clydesdales, Hackneys, Shorthorns and Shropshire Sheep.

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CLYDESDALE STALLIONS and MARES

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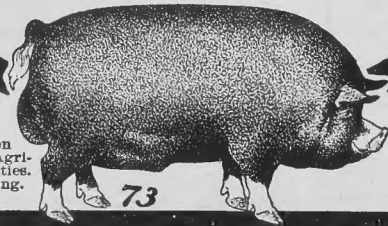
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You can talk with the men and women who have been cured by my treatment, and that's worth considering. I might preach for years in my efforts to gather converts to my way of curing disease, and nobody would pay any attention to my arguments; but when I tell you I have cured your neighbour, Mr. Walker, or your old friend, Mr. Williams, and you can go and ask them about me and they tell you I have cured them, then I have given you proof, and you know that I do all I claim. And I want you to give me credit for what I prove. There's nothing surer than the word of an honest man, and when such men as these admit that I cured them, you know that I can cure you.

HERE IS PROOF OF MY ARGUMENTS:

D. JANJISON, Steelton, Ont., writes: "I have been cured of weakness and varicocoe, and feel like a different man; would not be without your Belt for any money."

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J. LARGESS, Box 53, Vankleek Hill, Ont., reports: "The lameness in my back is all gone. The varicocoe is better, and I am getting better health generally, and have gained a good deal in weight."

JAS. HATT, Beech Hill, N.S., says: "The pains in my chest and back are all gone, and I have gained fifteen pounds in weight. It is a pleasure to say that I have at last found a remedy that would cure me of my aches and pains."

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Varicocoe, Rheumatism, Kidney Troubles, Lamé Back, Sciatica, Stomach Troubles, Nervous Debility, Lost Vitality and every indication that you are breaking down physically.

I take the chances, not you, so come and see me, and if I say I can cure you, I will prove it to your satisfaction before you pay me a cent, if you will secure me. That's fair. If you can't call, write to me, and send this coupon.

FREE BOOK—Every man who admires the perfection of physical strength should read my beautifully illustrated book. It tells how strength is lost, and how I restore it with my Electric Belt. I will send this book, closely sealed, free, upon receipt of this coupon. If you are not the man you should be, write to-day.

CALL TO-DAY, if you can, call and see me, and I will show you how you can be cured, and give you a free test of my Belt. **CONSULTATION FREE.**

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let it first be understood that rabies is not always characterized by a desire to bite, as there are cases where these symptoms of viciousness do not manifest themselves at all. The pupils are dilated and the eyes at times throw out a glistening flash. The reflection of light upon the internal tapetum gives to the eyes the appearance of balls of fire. In the excitement provoked by shutting it up in confinement it will hurl itself at the cage, issue its characteristic bark, and furiously bite the bars that prevent its escape, often breaking its teeth in the act. When teased with a piece of wood or iron the poor victim will seize it with the whole mouth and gnaw it furiously without uttering a sound.

These attacks occur at intervals more or less separated, and between them the animal is perfectly calm and seems to have recuperated all of the indications of perfect health. The rabid dog will attempt by every means to escape from its home, and once free it will flee, not with the tail between its legs, as ordinarily supposed, but with it well elevated and actively balanced. If another dog is encountered in its flight it will attack it and bite it in silence. If the bitten dog offers no resistance nothing further occurs, but if resented a fight will occur in which both dogs will roll over and over. Watched carefully, it will be observed that the one attacked is growling while the rabid one is silent.

The rabid dog does not long retain a free gait. Pushed by fatigue, paroxysms, hunger and thirst and enfeebled by the fell disease, it soon gives out in its limbs, slackens its pace, vacillates the tail pendent, inclines the head toward the ground, drops the mouth open and lolls the tongue, which is blue and covered with dust.

Soon the posterior extremities and the jaw becomes paralyzed and death supervenes.

It is said that healthy dogs possess an instinctive perspicacity through which they suspect the existence of rabies in other animals of their species. However true this may be it cannot be denied that all dogs do not manifest such terror, as some dogs will bite rabid ones when shut up together.

SYMPTOMS OF DUMB RABIES.

The symptoms of the initial period are the same as those of the mad form, but the paralysis of the lower jaw manifests itself at the onset and then develops progressively. The physiognomy of a dog affected with confirmed dumb rabies is most characteristic. The eyes are devoid of lustre and express fixed astonishment, and nothing will enliven the animal nor brighten up its expression. The patient is not ferocious; on the contrary the expression is that of sadness so sombre as to suggest fear, and it indicates well the inoffensive nature of an animal affected with this variety of the disease, a nature that results not in the non-virulence of the saliva, but in a condition of the nervous system that does not determine itself by aggressive manifestations. To this first feature that gives the atony and the sorrowfulness to the countenance, is coupled the strange expressions that results from gaping of the mouth, from which the tongue hangs inert and abundant viscous saliva flows during the first hours. At first the buccal mucosa reflects a red tint and presents the normal humidity, but the muscles of the lower jaw being incapable of supporting it or of closing the mouth, the incessant action of the air upon the interior walls soon desiccates the mucous membrane which then becomes dark blue in color and covered with adherent dust over the dried surface.

There are cases in which the paralysis of the jaw is the only symptom of the disease; the dog is kind and affectionate and one is led to suppose that some obstacle, such as a bone between the teeth or within the pharynx, opposes the opposition of the jaws. As the saliva is virulent, and as wounds might be sustained from the teeth, explorations of the mouth and manipulations to relieve the subject are hazardous.

The barking modulates in the same fashion as in mad rabies, but the sight of other dogs does not cause excitement and there is no inclination to bite nor tendency to attack other animals. The disease always terminates fatally within a short time.

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For Sale 160 acres in Slocan Valley, no waste land; no stone; all level; soil first class, 2 nice streams. Close to school, P.O., Ry Siding. 7 acres cleared 100 fruit trees, some are bearing. Good log buildings. \$4000.00 Cash.

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52 acres of splendid fruit land only 20 minutes from the center of the City of Nelson. First-class wagon road through property.

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500 raspberry bushes. 150 apple trees. 50 cherry trees. All the very best varieties.

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Small frame house and good frame barn.

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Kills Roaches, Bed-bugs, Rats and Mice

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Write for Testimonials.

TOO MANY BIG WORDS.

Ex-Gov. W. D. Hoard, of Wisconsin, fired hot-shot into the expanding long-wordiness of the scientific agriculturists gathered in Lansing, Mich., at the twenty-first annual convention of the American Association of Agricultural Colleges and Experiment Stations. The ex-governor is long and lanky, speaks with a tear in his voice and a sob in his eye, but there is a grim humor under it all, and everybody was roaring with laughter before he got through. Among his points were the following:

"The farmer is the objective thing in agriculture. We must get at him. Once I had an old German farm hand of whom I asked this question:

"What is the matter with this ground?"

"In his broken German he told me there was not enough humus in the ground. In amazement I asked him where he learned that. He said, 'In school in the fatherland when I was a little boy.'

"We want to teach our coming farmers things like that. We are studying to get at the farmers. I don't expect to do much with the farmers of the present. They are like the old rustic, who with his boys was looking at a sick horse:

"Tain't no use," said the old man, 'no use givin' him physic, his eyes is sot.'

"Our old farmers are too set in their ways. We must get at the young. The boy is the farmer of to-morrow. He is the one I want to reach.

"And in the teaching of agriculture we want to be careful about the terms we use. Here on the program I read 'Extension Work in Agriculture.' You can't extend agriculture. You can't stretch out the land to double size. What you really mean is extension of agricultural knowledge. Say what you mean, and then people understand you.

"When you shove 'agronomy' on the unsuspecting public instead of 'agriculture' they don't know what to do with it. We must avoid this tendency to bring in such big words as to make agricultural schools alien.

"When I hear what the farmer has to say about himself I think he is all right. But when I hear what a lot of scientific people using long names have to say about him I feel a heap of sympathy for the poor farmer."

Trade Note.

MR. W. C. GRAHAM, of The Manitoba Mutual Farmers' Hail Ins. Co., reports a large increase of business over the corresponding period last year. Almost without exception those who renew their business have increased the amount of their insurance. This indicates two things: it shows the confidence of the people in the Hail Insurance idea, and it also indicates an increased acreage in the settled districts of Western Canada. There can be no doubt whatever of the value of hail insurance. It protects from risk enables the farmer who has his crop injured to meet his obligations and face the world upon a square basis, and the fact that the western companies are this year reporting an increased business shows the confidence of the people and encourages belief in the stability of industry and agriculture in this country. We certainly commend hail insurance.

A group of workmen were arguing during the dinner hour. A deadlock had been reached when one of the men on the losing side turned to a mate who had remained silent during the whole debate.

"Ere, Bill," he said, 'you're pretty good at a argyment. Wot's your opinion?"

"I ain't a-going to say," said Bill. I thrashed the matter out afore with Dick Grey."

"Ah!" said the other, artfully, 'and what did you arrive at?"

"Well, e-venchally," said Bill, 'Dick 'e arrived at the 'orspital, an' I arrived at the perlice station!"

How many times during a year would you be willing to pay a few cents an hour for a reliable power?

A good many times, no doubt. For grinding or cutting feed, sawing wood, separating cream, churning, pumping water, grinding tools, and a score of other tasks. A good many times, indeed, and when you want it you want it without delay.

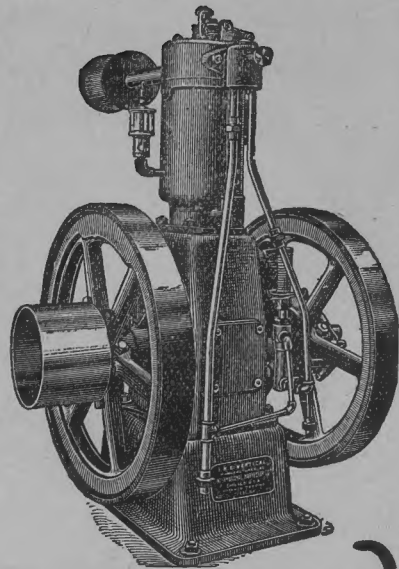
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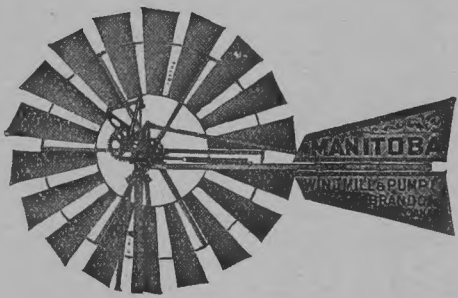
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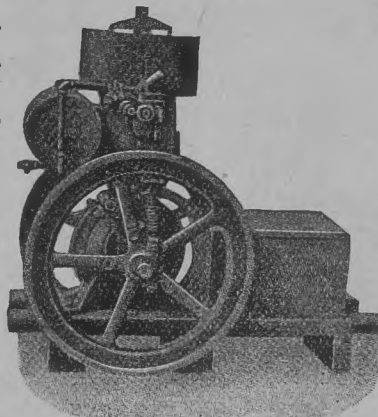
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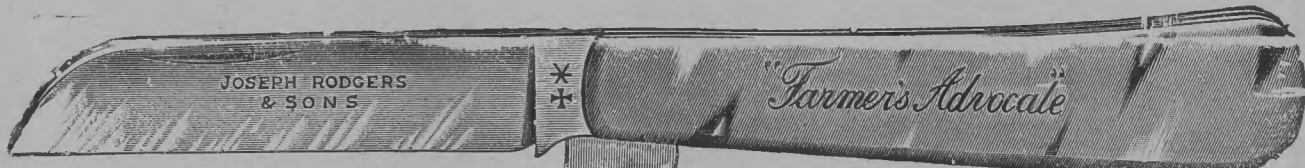
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